

NC DEPT. OF INSURANCE
2012 APPENDIX B BUILDING CODE SUMMARY

NC

Name Of Project:
Address:
Proposed Use:
Owner Or Authorized Agent:

CASWELL COUNTY REST AREA
US 29 PELHAM, NC
RESTROOM BUILDING
Weeks Turner Architecture
Raleigh, NC

Phone: (919) 779-9797
E-mail: ganderson@weeksturner.com

Owned By:
Code Enforcement Jurisdiction:

City

County

Private

County

State

State

LEAD DESIGN PROFESSIONAL:

WEEKS TURNER ARCHITECTURE, PA

DESIGNER

FIRM

NAME

LIC. #

TELEPHONE

E-MAIL

Architectural:

Weeks Turner Architecture

Ginger S. Anderson

11075

(919) 779-9797

ganderson@weeksturner.com

Civil

Burke Design Group

Benjamin E. Burke

22038

(919) 771-1916

benburke@nc.rr.com

Fire Alarm:

Plumbing:

Burke Design Group

Benjamin E. Burke

22038

(919) 771-1916

benburke@nc.rr.com

Mechanical:

Burke Design Group

Benjamin E. Burke

22038

(919) 771-1916

benburke@nc.rr.com

Sprinkler - Standpipe:

Structural:

Retaining Walls > 5' High

Other:

2012 EDITION OF NC CODE FOR:

New Construction

Addition

Upfit

EXISTING:

Reconstruction

Alteration

Repair

CONSTRUCTED

ORIGINAL USE RESTROOMS

RENOVATED

CURRENT USE RESTROOMS

PROPOSED USE

RESTROOMS

BUILDING DATA

CONSTRUCTION TYPE:

I-A

I-B

II-A

II-B

III-A

III-B

IV

V-A

V-B

MIXED CONSTRUCTION:

X

NO

YES

TYPES:

SPRINKLERS:

NO

PARTIAL

YES

NFPA 13

NFPA 13R

NFPA 13D

STANDPIPES:

NO

YES

CLASS

II

III

WET

DRY

FIRE DISTRICT:

NO

YES

FLOOD HAZARD AREA:

X

NO

YES

BUILDING HEIGHT:

22 FEET

NUMBER OF STORIES:

1

MEZZANINE:

X

NO

YES

GROSS BUILDING AREA

EXISTING (SF)

PORCH (SF)

TOTAL

NEW

3RD FLOOR

2ND FLOOR

MEZZANINE

1ST FLOOR

BASEMENT

TOTAL

3,599 htd.

1,338

4,937

0

0 SF

ALLOWABLE AREA:

PRIMARY OCCUPANCY:

ASSEMBLY

BUSINESS

EDUCATIONAL

FACTORY-INDUSTRIAL

HIGH-HAZARD

INSTITUTIONAL

A-1

A-2

A-3

A-4

A-5

F-1

Moderate

F-2

Low

H-1

Detonate

H-2

Deflagrate

H-3

Combust

H-4

Health

H-5

HPM

I-3

CONDITION

1

2

3

4

5

MERCANTILE

RESIDENTIAL

STORAGE

UTILITY AND MISC

R-1

R-2

R-3

R-4

S-1

Moderate

S-2

Low

HIGH-PILED

ENCLOSED

REPAIR

SECONDARY OCCUPANCY:

STORAGE (S-1)

SPECIAL OCCUPANCY:

402

403

404

405

406

407

408

409

410

411

412

413

414

415

416

417

418

419

420

421

SPECIAL PROVISIONS:

508.2

508.3

508.4

508.5

508.6

508.7

508.8

MIXED OCCUPANCY:

NO

X

YES

SEPARATION: --- HR.

EXCEPTION: ---

Incidental Use Separation (508.2)

This separation is not exempt as a Non-Separated Use (see exceptions)

X

Non-separated Mixed Occupancy (508.3.2)

The Required Type Of Construction For The Building Shall be Determined By Applying The Height And Area Limitations For Each Of The Applicable Occupancies To The Entire Building. The Most Restrictive Type Of Construction, So Determined, Shall Apply To The Entire Building.

Separated Mixed Occupancy (508.3.3) - See Below For Area Calc.

For Each Story, The Area Of The Occupancy Shall Be Such That The Sum Of The Ratios Of The Actual Floor Area Of Each Use Divided By The Allowable Floor Area For Each Use Shall Not Exceed 1.

ACTUAL AREA OF OCCUPANCY A

ALLOWABLE AREA OF OCCUPANCY A

+

ACTUAL AREA OF OCCUPANCY B

ALLOWABLE AREA OF OCCUPANCY B

<= 1

+

+

<= 1.00

STORY NO.

DESCR'N AND USE

BLDG AREA PER STORY (ACTUAL)

(A)

(B)

(C)

(D)

(E)

(F)

1

BUSINESS

4,937 sf

9,000

6,750

15,750

31,500

1

STORAGE

258 (less than 10%)

9,000

6,750

15,750

15,750

1.

Open Space Area Increases From Section 506.2 Are Computed Thus:

A. Perimeter Which Fronts A Public Way Or Open Space Having 20 Ft Min. Width = 198 (F).

B. Total Building Perimeter = 198 (F).

C. Ratio (F/P) = (F/P).

D. W: Minimum Width Of Public Way = 30 (W).

E. Percent Of Frontage Increase If = 100 / F/P - 0.25) X W/30 = 75 (%).

2.

The Sprinkler Increase Per Section 506.3 Is As Follows:

A. Multi-story Building Is = 200%

B. Single Story Building Is = 300%

3.

Unlimited Area Applicable Under Conditions Of Sections Group B, F, M, S, A-4 (507); Group A Motion Picture (507.9); Malls (402.6); And H-2 Aircraft Paint Hangers (507.7)

4. Max. Building Area = Total No. Of Stories In The Building X E But Not Greater Than 3 X E. (506.4)

5. The Maximum Area Of Parking Garages Must Comply With 406.3.5. The Maximum Area Of Air Traffic Control Towers Must Comply With 412.1.2.

ALLOWABLE HEIGHT

TYPE OF CONSTRUCTION: TYPE VB

ALLOWABLE (TABLE 503)

INCREASE FOR SPRINKLERS

SHOWN ON PLANS

CODE REFERENCE

BUILDING HEIGHT IN FEET

40 (FT)

(H +20')

22 (FT)

BUILDING HEIGHT IN STORIES

1 (STORIES)

(STORIES + 1)

1 (STORIES)

NC DEPT. OF INSURANCE
2012 APPENDIX B BUILDING CODE SUMMARY

CONTINUED

FIRE PROTECTION REQUIREMENTS

LIFE SAFETY PLAN SHEET # (IF PROVIDED)

BUILDING ELEMENT

FIRE SEPN DIST. (FT)

RATING REQ'D

RATING PROV'D (W/ ----* REDUCTION)

DETAIL # AND SHEET #

DES. # FOR RATED ASSY

DES. # FOR RATED PENETN

DES. # FOR RATED JOINTS

STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES BEARING WALLS

0

EXTERIOR

NORTH

MORE THAN 30'

0

EAST

MORE THAN 30'

0

WEST

MORE THAN 30'

0

SOUTH

MORE THAN 30'

0

INTERIOR

NONBEARING WALLS AND PARTITIONS

EXTERIOR

NORTH

EAST

WEST

SOUTH

INTERIOR WALL & PARTITIONS

FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS

ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS

0

SHAFTS ENCLOSURES-EXIT

SHAFTS ENCLOSURES-OTHER

CORRIDOR SEPARATION

OCCUPANCY SEPARATION

PARTY/FIRE WALL SEPARATION

SMOKE BARRIER SEPARATION

TENANT SEPARATION

INCIDENTAL USE SEPARATION

*INDICATE SECTION NO. PERMITTING REDUCTION

LIFE SAFETY SYSTEM REQUIREMENTS

EMERGENCY LIGHTING:

X

YES

NO

SMOKE DETECTION SYSTEMS:

YES

X

NO

EXIT SIGNS:

X

YES

NO

FIRE ALARM:

X

YES

NO

PANIC HARDWARE:

YES

X

NO

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: A0.2

Fire and/or smoke rated wall locations (Chapter 7)

Assumed and real property line locations

Exterior wall opening area with respect to distance to assumed property lines (705.8)

Existing structures within 30 feet of the proposed building

Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1)

Occupant loads for each area

Exit access travel distances (1016)

Common path of travel distances (1014.3 & 1028.8)

Dead end lengths (1018.4)

Clear exit widths for each exit door

Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)

Actual occupant load for each exit door

A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancyseparation

Location of doors with panic hardware (1008.1.10)

Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)

Location of doors with electromagnetic egress locks (1008.1.9.8)

Location of doors equipped with hold-open devices

Location of emergency escape windows (1029)

The square footage of each fire area (902)

The square footage of each smoke compartment (407.4)

Note any code exceptions or table notes that may have been utilized regarding the items above

DESIGN LOADS: EXISTING TO REMAIN - NO CHANGES TO STRUCTURE

BUILDING OCCUPANCY CATEGORY

II

ROOF DEAD LOAD

PSF

ROOF LIVE LOAD

PSF

CEILING DEAD LOAD

PSF

CEILING LIVE LOAD

PSF

FLOOR LIVE LOAD (Uniform)

100PSF

FLOOR LIVE LOAD (Concentrated)

2000 LBS

SNOW LOAD DATA:

GROUND SNOW LOAD

PSF

SNOW EXPOSURE FACTOR

SNOW LOAD IMPORTANCE FACTOR

THERMAL FACTOR

FLAT ROOF SNOW LOAD

PSF

ROOF SLOPE FACTOR

PITCHED ROOF SNOW LOAD

WIND LOAD DATA:

DESIGN WIND SPEED (ASCE 7-05)

100 MPH

WIND IMPORTANCE FACTOR

WIND EXPOSURE

INTERNAL PRESSURE COEFFICIENTS

NBL BUILDING:

WIND BASE SHEAR (x-x DIRECTION)

KIPS

WIND BASE SHEAR (y-y DIRECTION)

KIPS

CORNER ZONE BOUNDARY DIST. "a" FOR C/C WIND

FT

PLUMBING FIXTURE REQUIREMENT

USE: BUSINESS 4,937 SF/100 = 50 PEOPLE

WATERCLOSETS

MALE

FEMALE

LAVATORIES

MALE

FEMALE

FAMILY RESTROOM

DRINKING FOUNTAINS

REQUIRED

1

1

1

1

PROVIDED

4

10

4

4

4

1

1

ACCESSIBLE PARKING EXISTING PARKING TO REMAIN - see DOT site plan

LOT OR PARKING AREA

TOTAL # OF SPACES REQ'D

OF ACCESSIBLE SPACES PROVIDED WITH 5' VAN SPACES WITH ACCESS AISLE

TOTAL # ACCESSIBLE PROVIDED

CASWELL COUNTY REST AREA

US 29 PELHAM, NC

GENERAL NOTES

I: FOR THIS PROJECT:

A) THE ARCHITECTS SCOPE OF WORK DOES INCLUDE CONSTRUCTION OBSERVATION.

THE CONTRACTOR IS IN CHARGE OF THE WORK AND COMPLIANCE WITH THESE CONSTRUCTION DOCUMENTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE ARCHITECT WILL BEAR NO RESPONSIBILITY FOR FAILURE OF THE CONTRACTOR TO FULLY COMPLY WITH ALL CONSTRUCTION DOCUMENTS.

USE OF THESE CONTRACT DOCUMENTS WILL CONSTITUTE AGREEMENT BY THE CONTRACTOR TO THESE CONDITIONS.

B) THE GENERAL CONDITIONS OF THE CONTRACT FOR THE CONSTRUCTION OF THE BUILDINGS OF THE AMERICAN INSTITUTE OF ARCHITECTS DOCUMENT A-201, LATEST EDITION, ARE HEREBY MADE PART OF THE CONTRACT DOCUMENTS. IN THE EVENT OF A CONFLICT, THESE GENERAL NOTES AND CONTRACT SUPERSEDE "AIA DOCUMENT A-201".

II: ALL WORK UNDER THIS CONTRACT SHALL:

A) CONFORM TO STATE, LOCAL AND NATIONAL CODES AND ORDINANCES AS ARE APPLICABLE TO THE WORK INCLUDING BUT NOT LIMITED TO THE NORTH CAROLINA STATE BUILDING CODE, THE AMERICANS WITH DISABILITIES ACT (ADA), NATIONAL ELECTRIC CODES, ASTM SPECIFICATIONS, AND OSHA SAFETY REGULATIONS.

B) COMPLY WITH ALL LAWS, ORDINANCES, CODES, RULES AND REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION (EPA), THE COST OF ALL REQUIRED INSPECTIONS AND PERMITS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

III: UNLESS OTHERWISE DIRECTED BY THE ARCHITECT, THE CONTRACTOR SHALL:

A) SUPPLY AND PAY FOR ALL LABOR, TRANSPORTATION, MATERIALS, TOOLS, APPARATUS, LIGHTS, POWER, HEAT, SANITARY FACILITIES, WATER, SCAFFOLDING, AND INCIDENTALS NECESSARY FOR THE COMPLETION OF HIS WORK.

B) INSTALL, MAINTAIN AND REMOVE ALL EQUIPMENT, OTHER UTENSILS OR THINGS USED FOR THE CONSTRUCTION PRIOR TO TURNING OVER THE PROJECT. IF SUCH ITEMS ARE LEFT AFTER COMPLETION OF THE PROJECT, THEY SHALL BECOME PROPERTY OF THE OWNER. THE OWNER MAY PROMPTLY DISPOSE OF SUCH ITEMS, AND WILL NOT BE SUBJECT TO CLAIMS OF THE CONTRACTOR RESULTING FROM SUCH DISPOSITION.

C) CONSTRUCT IN THE BEST AND PROFESSIONAL MANNER, A COMPLETE JOB AND EVERYTHING INCIDENTAL THERETO, AS SHOWN OR REASONABLY IMPLIED FROM THE PLANS, ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

D) VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES DISCOVERED OR LACK OF REQUIRED INFORMATION. IF THE CONTRACTOR OBSERVES THE CONTRACT DOCUMENTS TO BE CONTRARY TO GOVERNING LAWS, ORDINANCES, CODES, RULES AND REGULATIONS OR OTHERWISE QUESTIONABLE CONDITIONS, HE SHALL PROMPTLY NOTIFY THE ARCHITECT IN WRITING FOR INSTRUCTIONS PRIOR TO PROCEEDING WITH THE WORK.

E) KEEP THE BUILDING AND SURROUNDING AREA REASONABLY FREE FROM RUBBISH AT ALL TIMES. AT A MINIMUM, DEBRIS SHALL BE REMOVED FROM THE SITE ON A WEEKLY BASIS OR AS DIRECTED BY PROJECT EXPEDITOR.

F) LOCATE ALL EXISTING UTILITIES. THE CONTRACTOR MAY NOT INTERFERE WITH ADJACENT UTILITIES UNLESS PRIOR NOTICE AND PERMISSION IS RECEIVED FROM THOSE WHO MAY AS A RESULT OF THIS INTERFERENCE BE AFFECTED.

G) PRIOR TO ANY WORK, CALL "NC ONE CALL CENTER" @ 800-632-4949 AND OTHER LOCATING SERVICES AS TO CONFIRM LOCATION OF UTILITIES.

H) PRIOR TO FINAL INSPECTION AND ACCEPTANCE OF THE BUILDING, EACH CONTRACTOR SHALL CLEAN HIS PORTION OF THE WORK, INCLUDING GLASS, HARDWARE FIXTURES, MASONRY, TILE AND MARBLE (USING NO ACID), CLEAN AND WAX ALL FLOORS AS SPECIFIED, AND COMPLETELY PREPARE THE BUILDING FOR USE BY THE OWNER.

I) FILE WITH THE OWNER, CURRENT INSURANCE CERTIFICATIONS IN THE AMOUNTS REQUESTED BY THE OWNER FOR BUILDER'S RISK, WORKMEN'S COMPENSATION, COMPREHENSIVE GENERAL LIABILITY, BODILY INJURY AND PROPERTY DAMAGE. THIS INSURANCE SHALL INCLUDE THE OWNER AND THE ARCHITECT OF ANY AND ALL COSTS, CLAIMS, SUITS AND JUDGEMENTS FOR PROPERTY DAMAGE AND PERSONAL INJURY (INCLUDING GENERAL) ARISING OUT OF THE CONTRACTOR'S ACTIONS.

J) PROVIDE ALL NECESSARY SAFETY MEASURES FOR THE PROTECTION OF ALL PERSONS OF THE WORK, INCLUDING THE REQUIREMENTS OF THE A.G.C. ACCIDENT PREVENTION MANUAL IN CONSTRUCTION AS AMENDED, AND SHALL FULLY COMPLY WITH ALL STATE LAWS OR REGULATIONS AND NORTH CAROLINA STATE BUILDING CODE REQUIREMENTS TO PREVENT ACCIDENT OR INJURY TO PERSONS ON OR ABOUT THE LOCATION OF THE WORK.

K) CLEARLY MARK OR POST SIGNS, WARNING OF HAZARDS EXISTING, AND BARRICADE EXCAVATIONS, ELEVATOR SHAFTS, STAIRWELLS AND SIMILAR HAZARDS. PROTECT AGAINST DAMAGE OR INJURY RESULTING FROM FALLING MATERIALS AND MAINTAIN ALL PROTECTIVE DEVICES AND SIGNS THROUGHOUT THE PROGRESS OF THE WORK.

DRAWING INDEX

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SD02	SITE LAYOUT DETAILS
SD03	SITE PAVEMENT DETAILS
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A1.2	REV. FLOOR PLAN
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E3	REVISED LIGHTING PLAN
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E5	REVISED POWER PLAN
E6	VENDING AREA/ATTC ACCESS
E7	PANEL SCHEDULES/SERIVCE RISER
E8	ELECTRICAL DETAILS

ENERGY SUMMARY

ENERGY REQUIREMENTS:

The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If energy cost budget method, state the annual energy cost budget vs allowable annual energy cost budget.

THERMAL ENVELOPE

Method of Compliance:

☐ Prescriptive ☐ % Glazed Wall Area
☐ Performance ☐ Energy Cost Budget

Roof/Ceiling Assembly (each assembly)

Description of assembly existing to remain - R-30 batt insulation at attic floor
U-Value of total assembly _____
R-Value of insulation _____
Skylights in each assembly _____
U-Value of skylight _____
Total square footage of skylights in each assembly _____

Exterior Walls (each assembly)

Description of assembly existing R-19 batt insulation, replace in kind as needed
U-Value of total assembly _____
R-Value of insulation _____
Openings (windows or doors with glazing)
U-Value of assembly 0.32
Shading coefficient 0.33
Projection factor 0.40
Low-e required, if applicable _____
Door R-Values _____

Walls adjacent to unconditioned space (each assembly)

Description of assembly na
U-Value of total assembly _____
R-Value of insulation _____
Openings (windows or doors with glazing)
U-Value of assembly _____
Low-e required, if applicable _____
Door R-Values _____

Walls below grade (each assembly)



DocuSigned by:
Ginger S. Anderson
E902B345662C422...

11/4/2016

STATE ID# 16-16107-01A
WBS ELEMENT 51213.022

PROJECT TITLE
**CASWELL COUNTY
REST AREA**
US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

DRAWING TITLE
LIFE SAFETY PLAN

SHEET 2 OF 13

A0.2

PLOT DATE 11/3/16
REVISION 00/00/08

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LEGEND

-----> EGRESS PATH

C.P.T. = COMMON PATH OF TRAVEL

AREAS

1,920 SF	EXISTING REST AREA
1,679 SF	EXISTING VISITOR CENTER
1,338 SF	EXISTING PORCH AREA
4,937 SF	TOTAL AREA

EGRESS REQ. & CODE REF.

REST AREA
USE: BUSINESS
1,920 SF/100 = 20 PEOPLE

VISITOR CENTER
USE: BUSINESS
1,679 SF/100 = 17 PEOPLE

20 x 0.2" = 4.0" CLEAR EGRESS WIDTH PER 1005.1 OF NCSCB

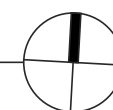
SINGLE EXIT PER TABLE 1015.1 (LESS THAN 49 PERSONS) & 1014.3 (LESS THAN 100 FT. EGRESS TRAVEL) OF NCSCB

DOORS TO HAVE 32" MIN. CLR. PER 404.2.2 OF ANSI A117.1

THE CLEAR WIDTH OF INTERIOR ACCESSIBLE ROUTE IS 36" MIN. PER 403.5 OF ANSI A117.1

1 LIFE SAFETY PLAN

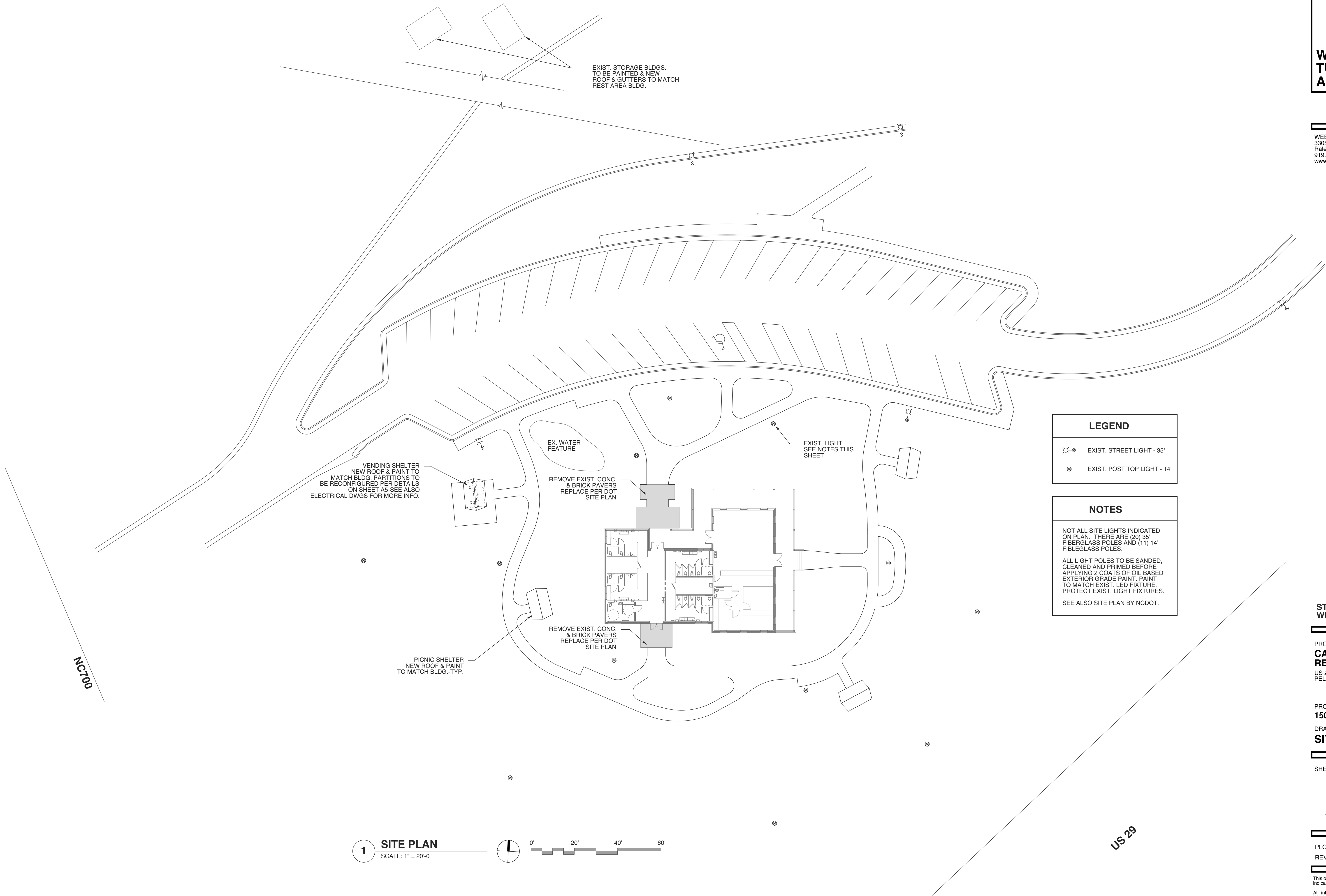
SCALE: 1/8" = 1'-0"



10' 8' 6' 4' 2' 0 10'



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E9028345662C422...
11/4/2016



LEGEND	
	EXIST. STREET LIGHT - 35'
	EXIST. POST TOP LIGHT - 14'

NOTES
NOT ALL SITE LIGHTS INDICATED ON PLAN. THERE ARE (20) 35' FIBERGLASS POLES AND (11) 14' FIBLEGLASS POLES.
ALL LIGHT POLES TO BE SANDED, CLEANED AND PRIMED BEFORE APPLYING 2 COATS OF OIL BASED EXTERIOR GRADE PAINT. PAINT TO MATCH EXIST. LED FIXTURE. PROTECT EXIST. LIGHT FIXTURES.
SEE ALSO SITE PLAN BY NCDOT.

STATE ID# 16-16107-01A
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PROJECT TITLE
**CASWELL COUNTY
REST AREA**
US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b
DRAWING TITLE
SITE PLAN

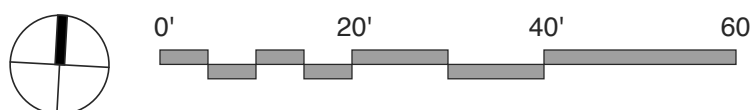
SHEET 3 OF 13

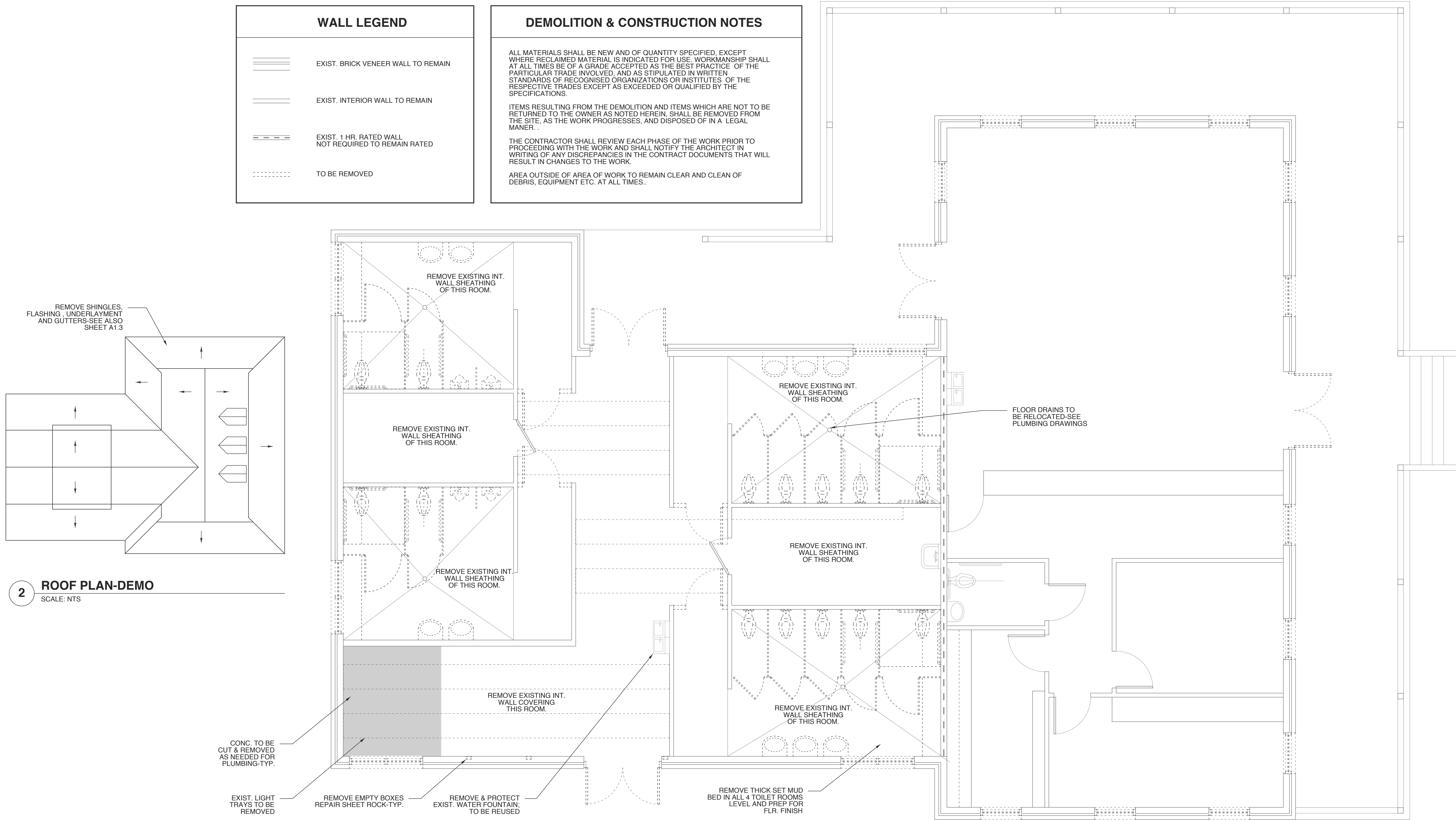
A0.3

PLOT DATE 11/2/16
REVISION 00/00/08

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1 **SITE PLAN**
SCALE: 1" = 20'-0"



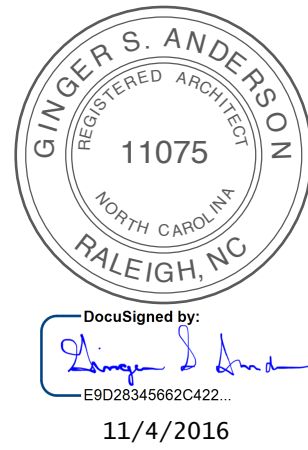


2 **ROOF PLAN-DEMO**
SCALE: NTS

1 **EXISTING FLOOR PLAN-DEMO**
SCALE: 1/4" = 1'-0"

**WEEKS
TURNER
ARCHITECTURE**

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PROJECT TITLE
**CASWELL COUNTY
REST AREA**
US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b
DRAWING TITLE
EXIST. FLOOR PLAN

SHEET 4 OF 13

A1.1

PLOT DATE 11/2/16
REVISION 00/00/08

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PROJECT TITLE
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REST AREA**
US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b
DRAWING TITLE
REV. FLOOR PLAN

SHEET 5 OF 13

A1.2

PLOT DATE 11/2/16
REVISION 00/00/08

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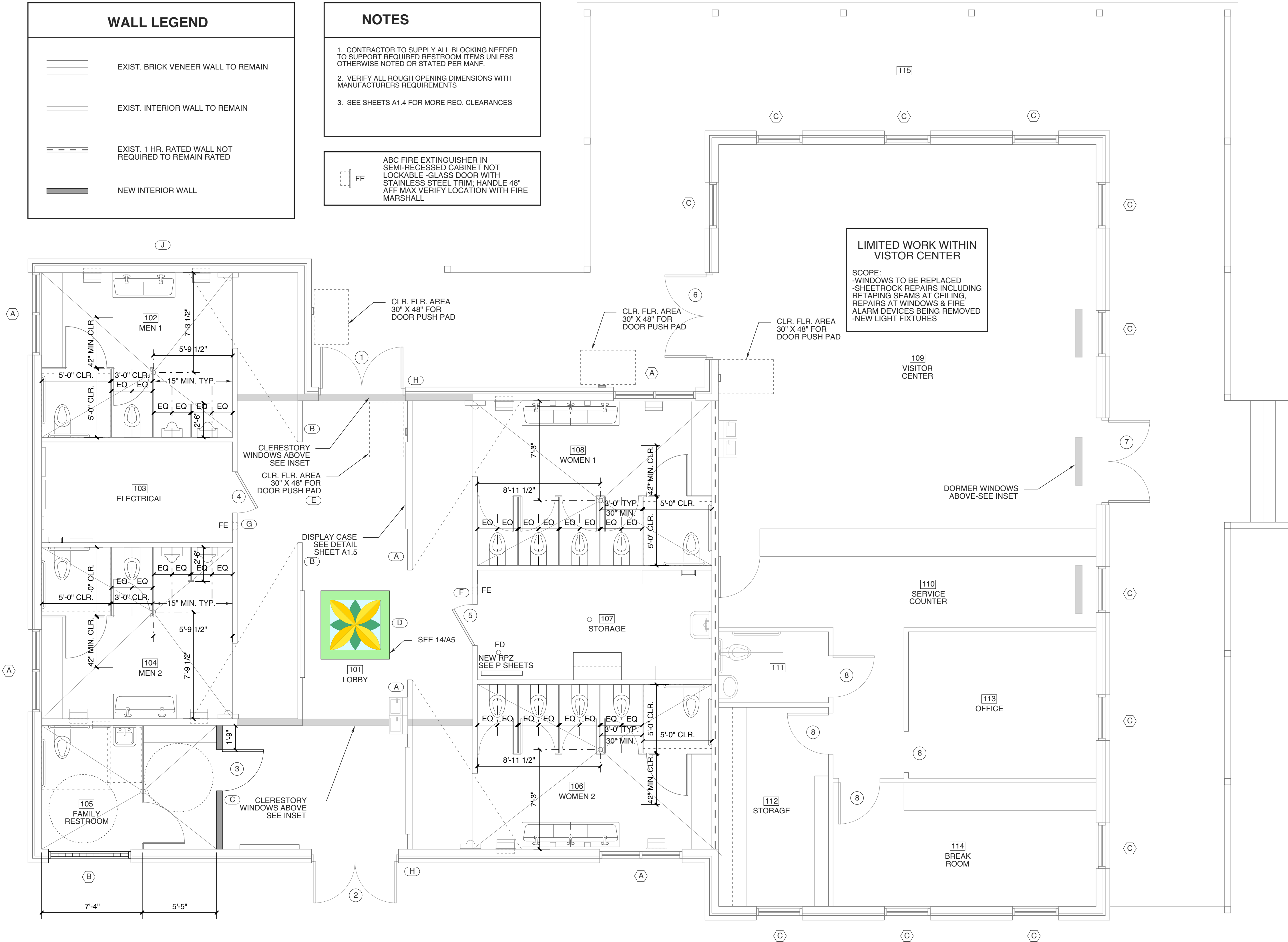
WALL LEGEND	
	EXIST. BRICK VENEER WALL TO REMAIN
	EXIST. INTERIOR WALL TO REMAIN
	EXIST. 1 HR. RATED WALL NOT REQUIRED TO REMAIN RATED
	NEW INTERIOR WALL

NOTES	
1.	CONTRACTOR TO SUPPLY ALL BLOCKING NEEDED TO SUPPORT REQUIRED RESTROOM ITEMS UNLESS OTHERWISE NOTED OR STATED PER MANF.
2.	VERIFY ALL ROUGH OPENING DIMENSIONS WITH MANUFACTURERS REQUIREMENTS
3.	SEE SHEETS A1.4 FOR MORE REQ. CLEARANCES

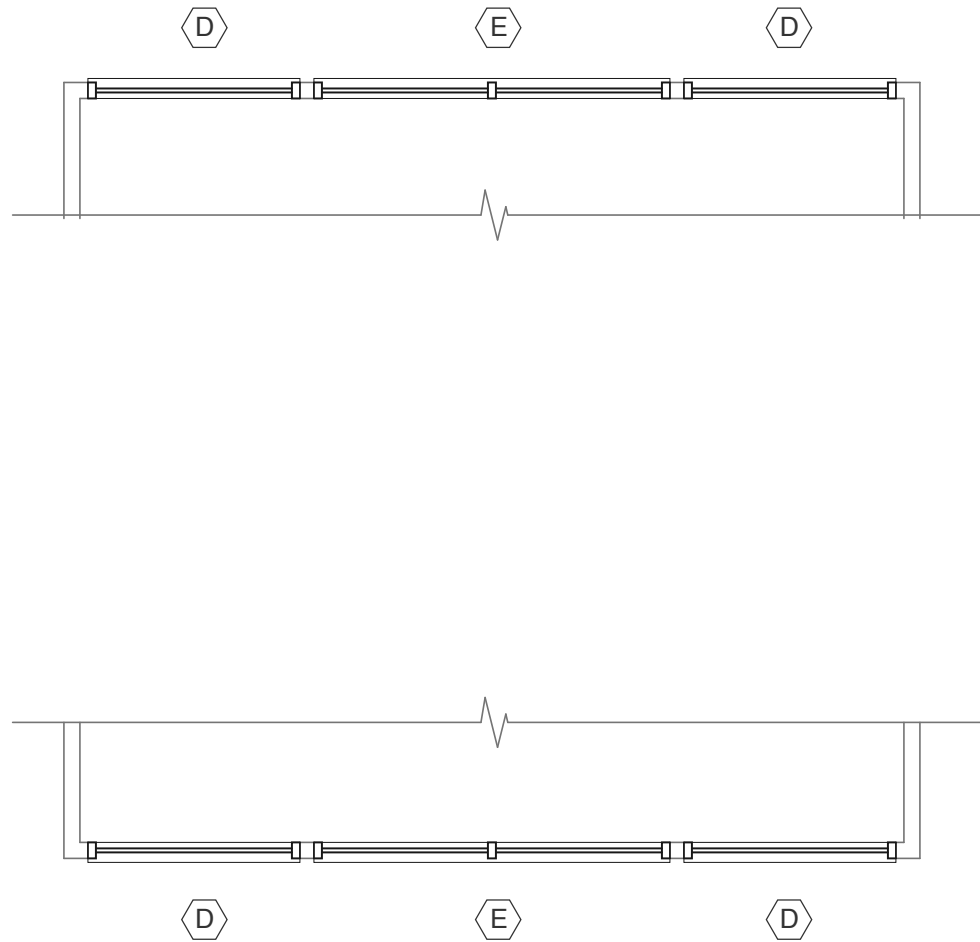
	ABC FIRE EXTINGUISHER IN SEMI-RECESSED CABINET NOT LOCKABLE -GLASS DOOR WITH STAINLESS STEEL TRIM; HANDLE 48" AFF MAX VERIFY LOCATION WITH FIRE MARSHALL
--	--

LIMITED WORK WITHIN
VISTOR CENTER

SCOPE:
-WINDOWS TO BE REPLACED
-SHEETROCK REPAIRS INCLUDING
RETAPING SEAMS AT CEILING
REPAIRS AT WINDOWS & FIRE
ALARM DEVICES BEING REMOVED
-NEW LIGHT FIXTURES



3 DORMER WINDOWS
SCALE: 1/4" = 1'-0"

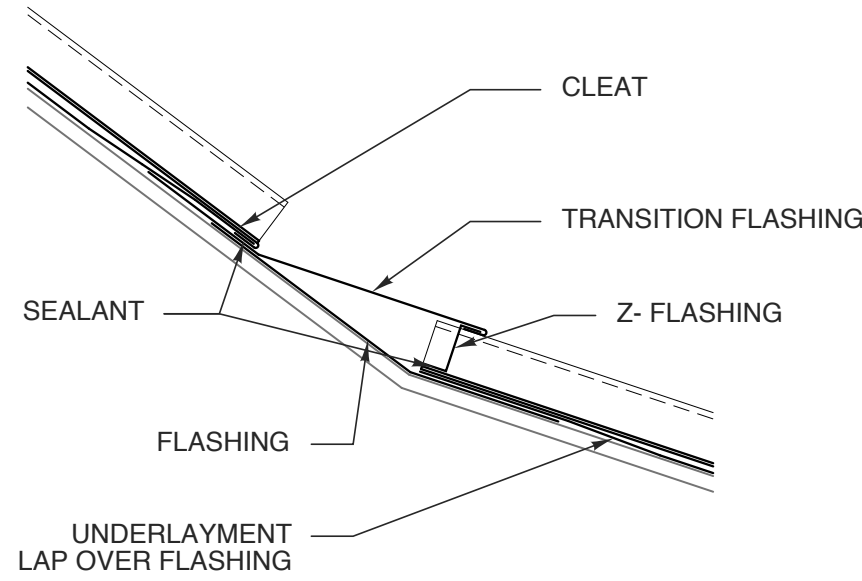


2 CLERESTORY WINDOWS
SCALE: 1/4" = 1'-0"

SIGNAGE LEGEND	
(A)	WOMEN-1 PC. MILLED ALUM PER 7/A5
(B)	MEN-1 PC. MILLED ALUM PER 7/A5
(C)	FAMILY-1 PC. MILLED ALUM PER 7/A5
(D)	WOMEN-INDIVIDUAL/DIM. LETTERS PER 8/A5
(E)	MEN-INDIVIDUALDIM. LETTERS PER 8/A5
(F)	JANITOR-1 PC. MILLED ALUM PER 7/A5
(G)	ELECTRICAL-1 PC. MILLED ALUM SIM TO 7/A5
(H)	NO SMOKING-1 PC. MILLED ALUM SIM TO 7/A5
(J)	CASWELL COUNTY REST AREA

SEE SHEETS A1.5 & A5 FOR MORE PLACEMENT DETAILS.

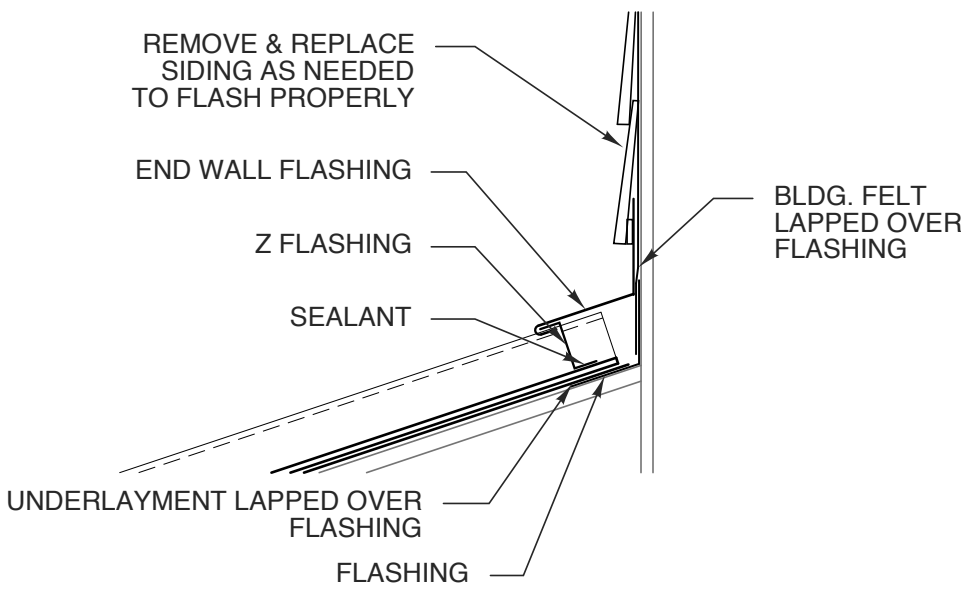
1 REVISED FLOOR PLAN
SCALE: 1/4" = 1'-0"



ALL ELEMENTS TO BE INSTALLED PER MANF. REQ.

10 TRANSITION FLASHING

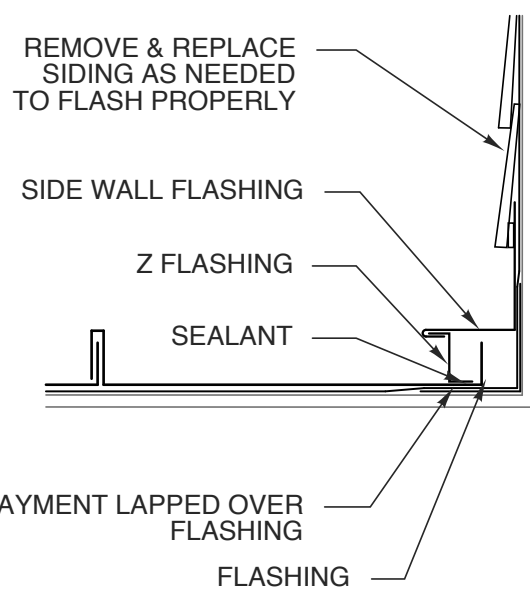
SCALE: 1 1/2" = 1'-0"



ALL ELEMENTS TO BE INSTALLED PER MANF. REQ.

8 END WALL FLASHING

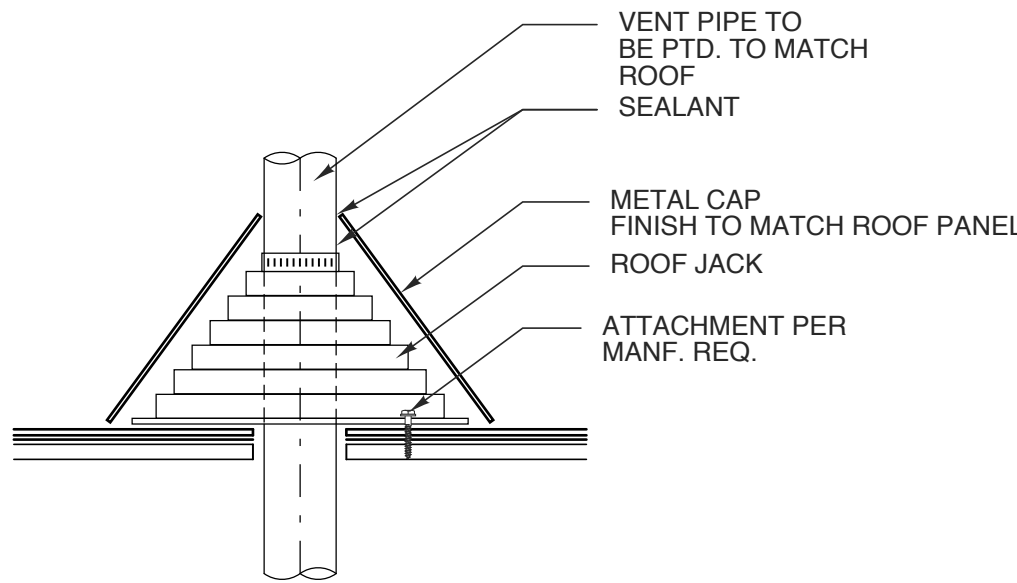
SCALE: 1 1/2" = 1'-0"



ALL ELEMENTS TO BE INSTALLED PER MANF. REQ.

6 SIDE WALL FLASHING

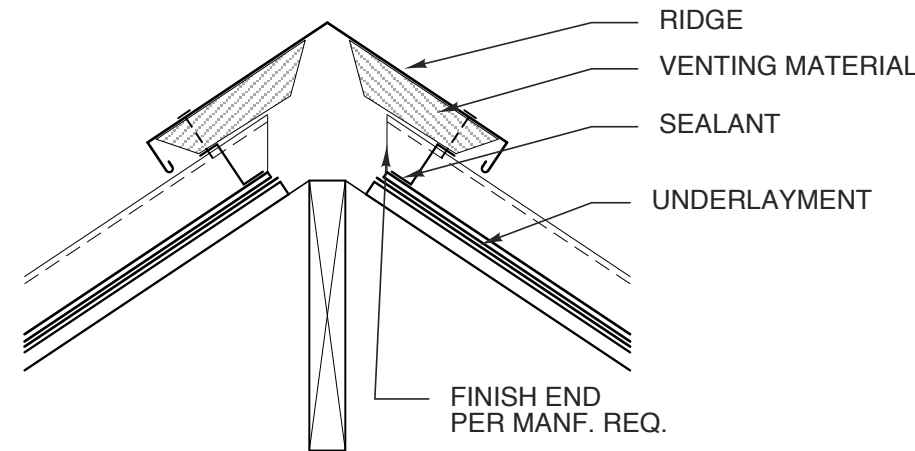
SCALE: 1 1/2" = 1'-0"



ALL ELEMENTS TO BE INSTALLED PER MANF. REQ.

4 VENT DETAIL

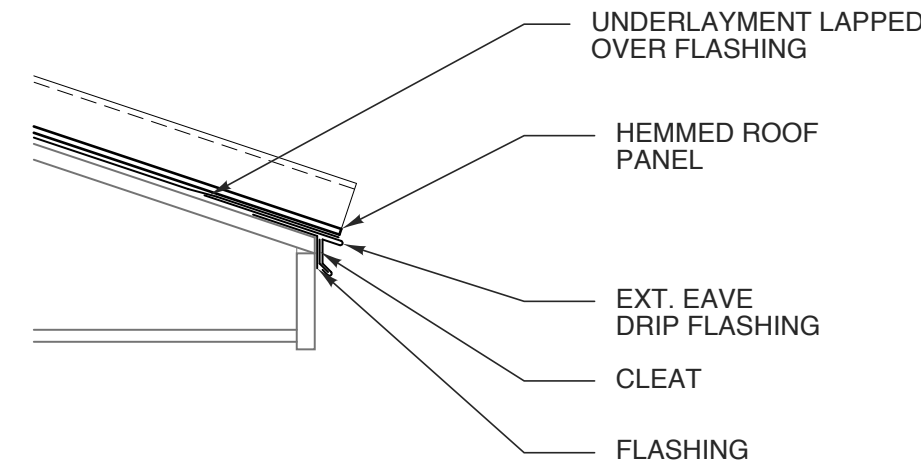
SCALE: 1 1/2" = 1'-0"



ALL ELEMENTS TO BE INSTALLED PER MANF. REQ.

9 RIDGE VENT

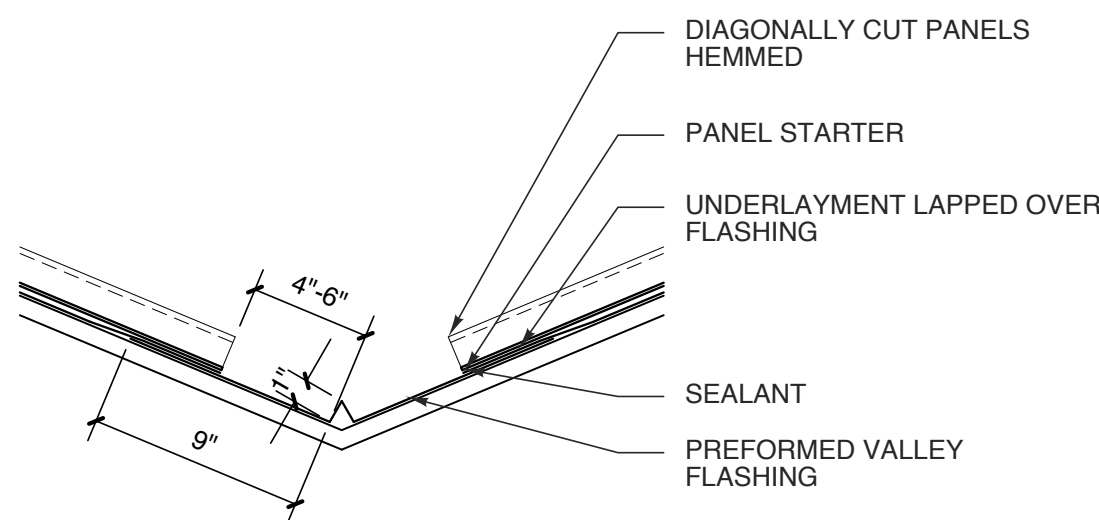
SCALE: 1 1/2" = 1'-0"



ALL ELEMENTS TO BE INSTALLED PER MANF. REQ.

7 DRIP EAVE DETAIL

SCALE: 1 1/2" = 1'-0"



ALL ELEMENTS TO BE INSTALLED PER MANF. REQ.

5 VALLEY DETAIL

SCALE: 1 1/2" = 1'-0"

NOT USED

ATTIC VENTILATION

1770 SF EXISTING ATTIC AREA (REST AREA)
1526 SF EXISTING ATTIC AREA (VISITOR CENTER)

1770/300 = 5.9 SF FREE VENT. AREA REQ'D
1526/300 = 5.1 SF FREE VENT. AREA REQ'D

50 PERCENT OF THE REQUIRED VENTILATING AREA PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY THE EAVE OR CORNICE VENTS.

ROOF DRAINAGE LEGEND

3" x 4" VERTICAL LEADER
5" EAVE GUTTER @ 1:16 SLOPE

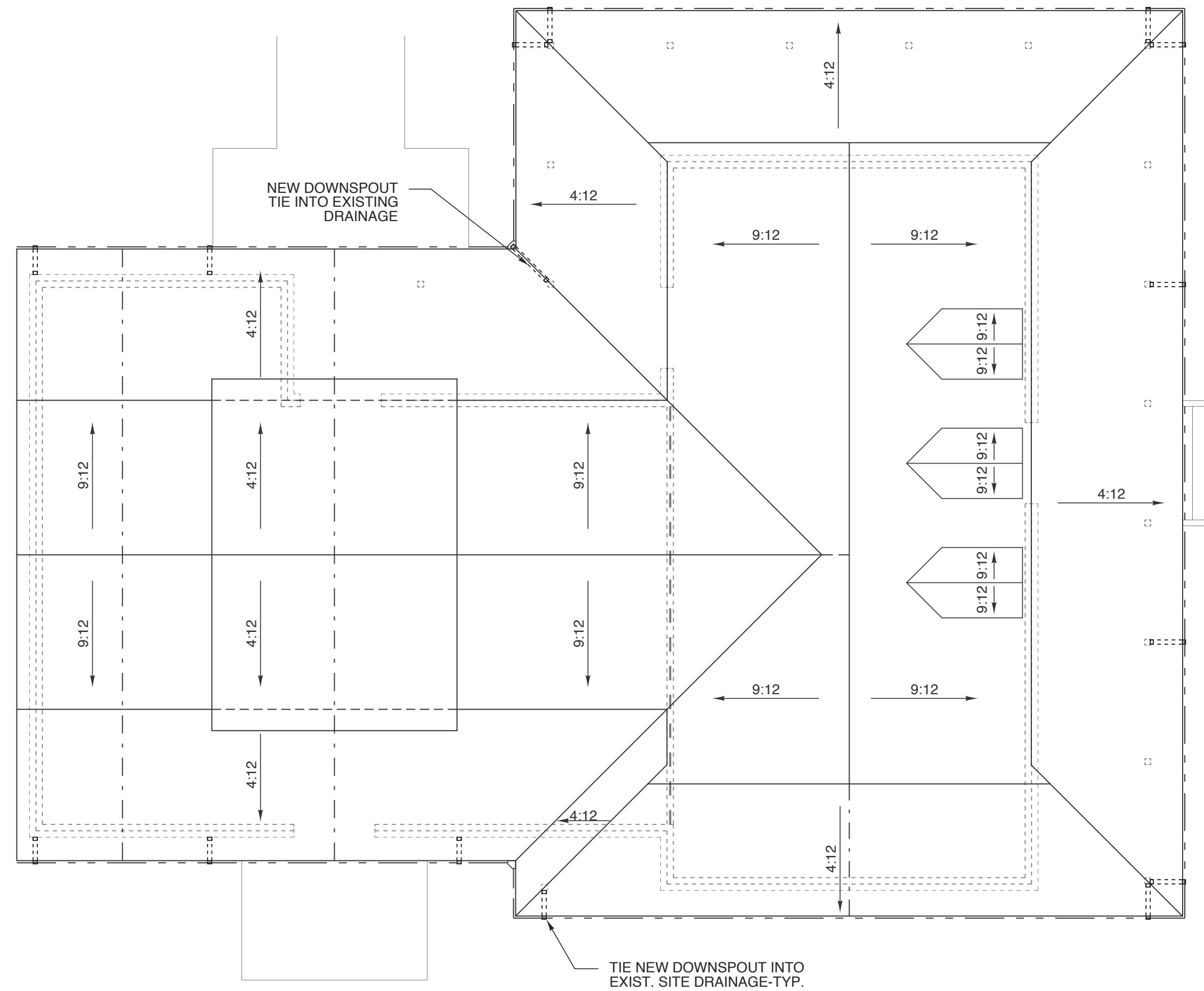
ROOF DRAINAGE CALCULATIONS

PER 2012 NC PLUMBING CODE

TABLE 1106.2 (2) RECTANGULAR VERTICAL LEADERS
3X4 @ 4"/HR 3,300 SF MAX AREA

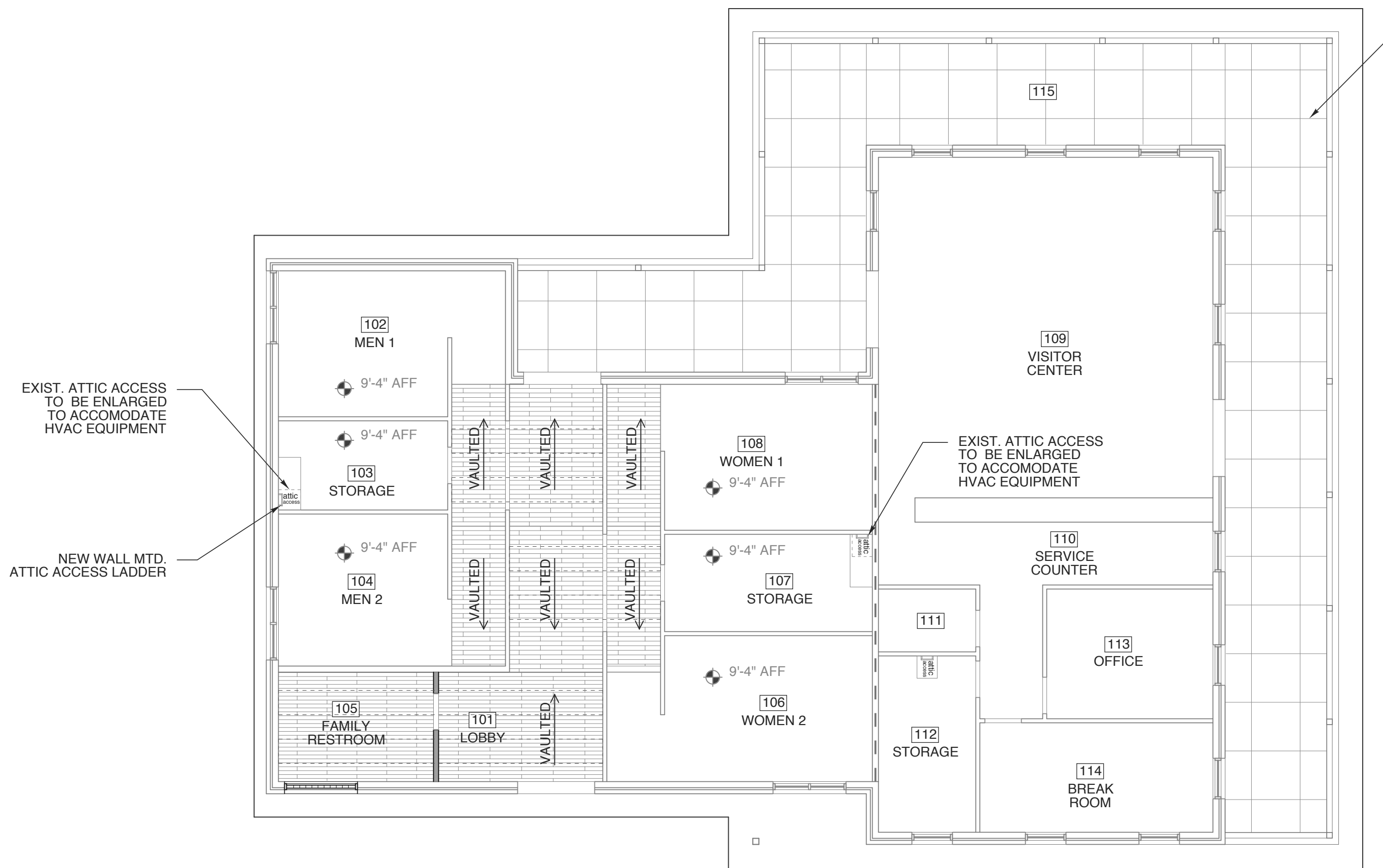
TABLE 1106.6 SIZE OF SEMI-CIRCULAR ROOF GUTTERS
5" DIA. @4"/HR 625 SF MAX AREA
@ 1/16: 12 (1/2%) SLOPE

ALL ROOF PENETRATIONS TO BE PAINTED TO MATCH ROOF.



2 ROOF PLAN

SCALE: 1/8" = 1'-0"



1 REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"

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PROJECT TITLE
CASWELL COUNTY REST AREA
US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

DRAWING TITLE
RCP & ROOF PLAN

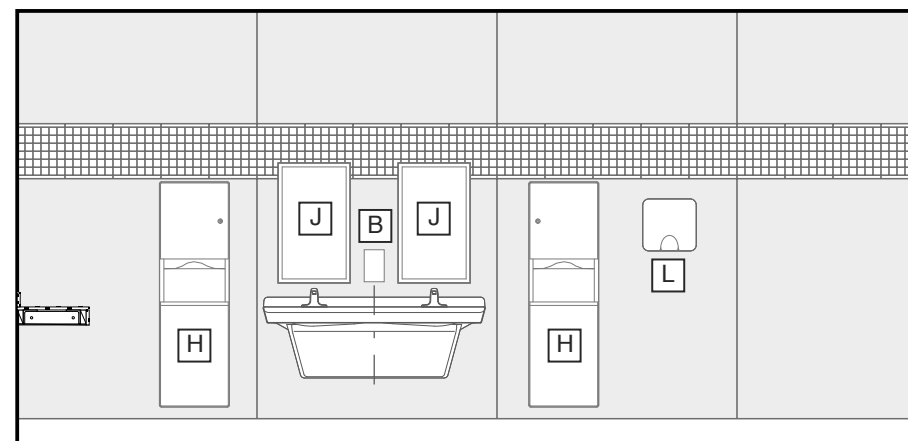
SHEET 6 OF 13

A1.3

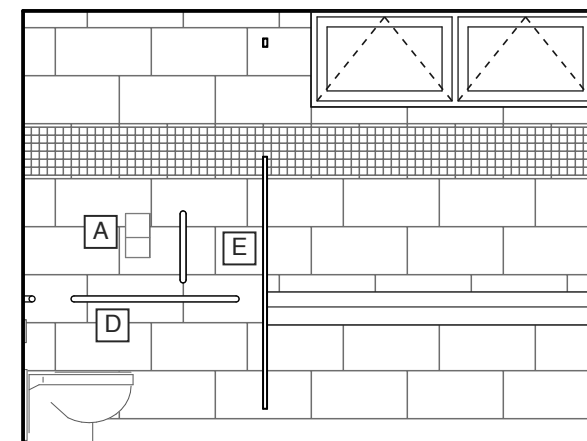
PLOT DATE 11/2/16
REVISION 00/00/08

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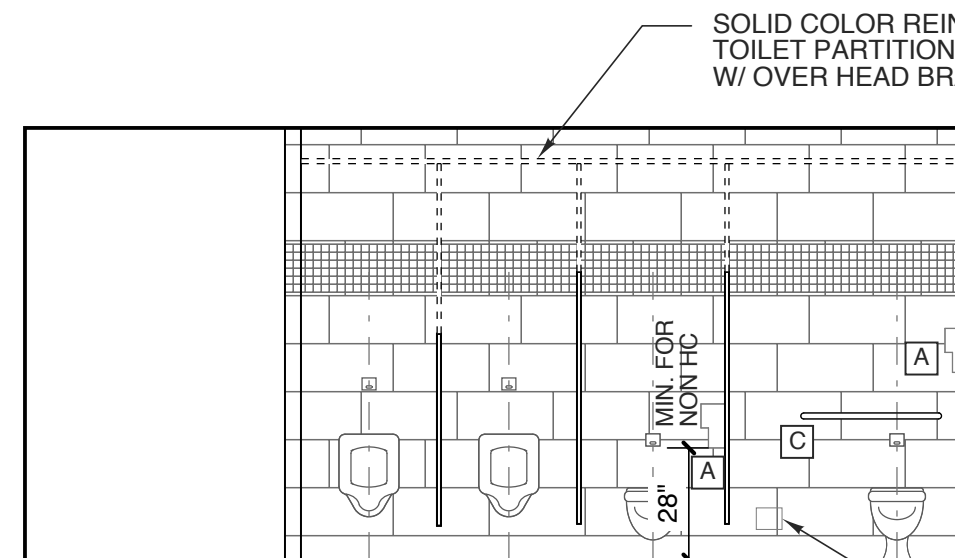
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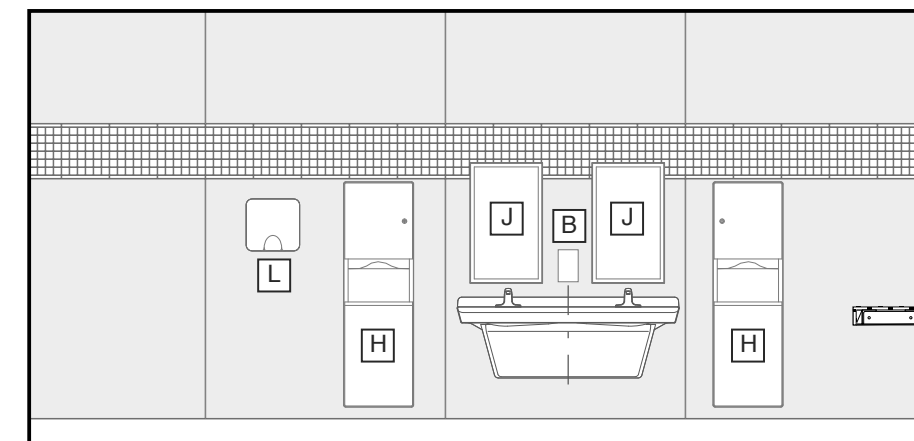
13 **ELEV.-MEN 1**
SCALE: 1/4"= 1'-0"



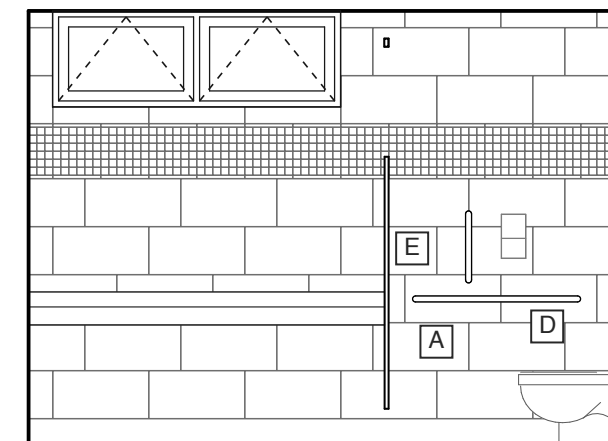
12 ELEV.-MEN 1
SCALE: 1/4" = 1'-0"



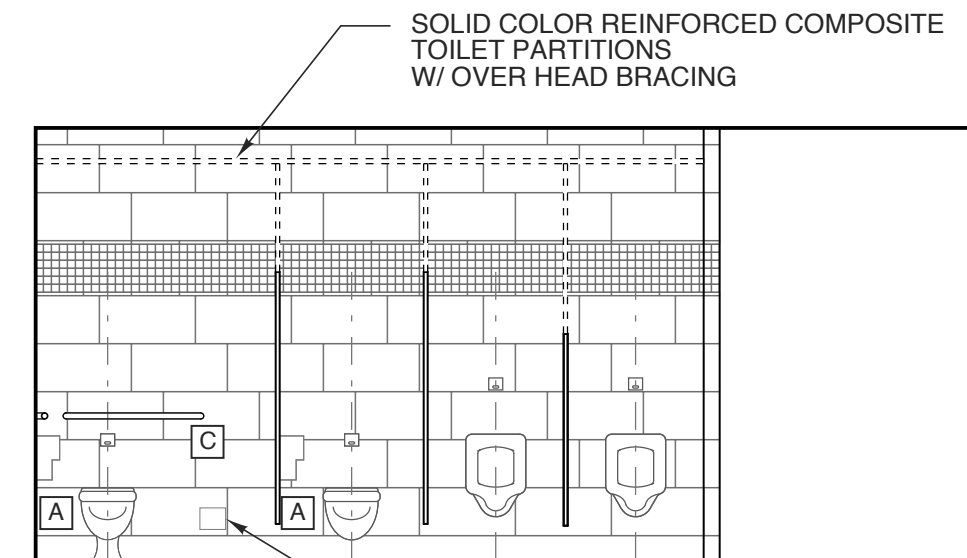
11 ELEV.-MEN 1
SCALE: 1/4" = 1'-0"



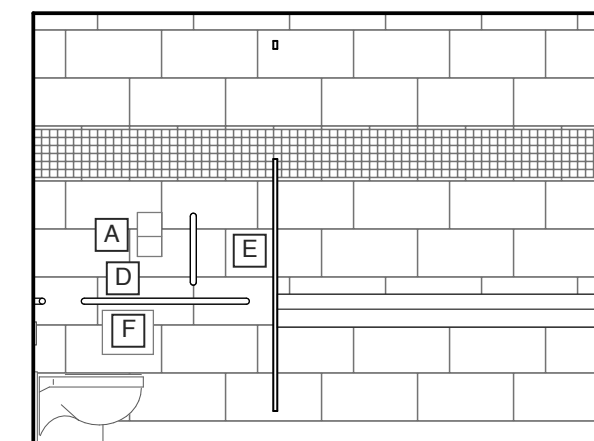
10 ELEV.-MEN 2
SCALE: 1/4"= 1'-0"



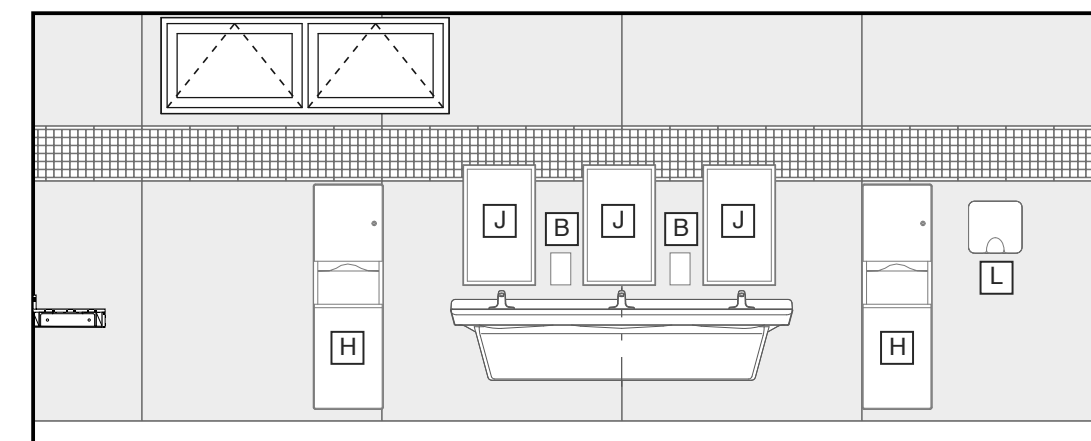
9 ELEV.-MEN 2
SCALE: 1/4"= 1'-0"



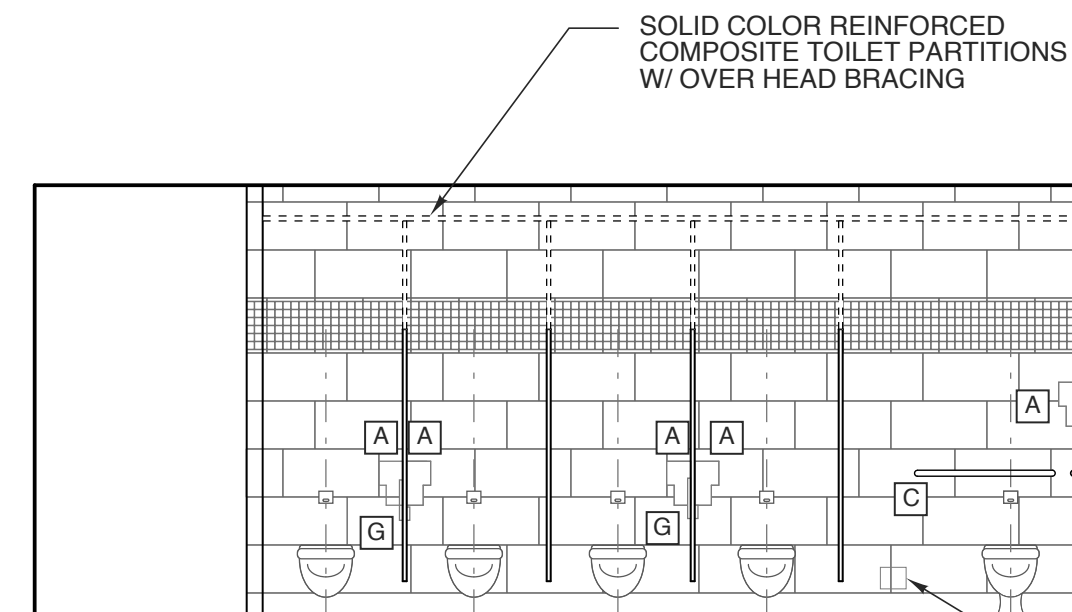
8 ELEV.-MEN 2
SCALE: 1/4"= 1'-0"



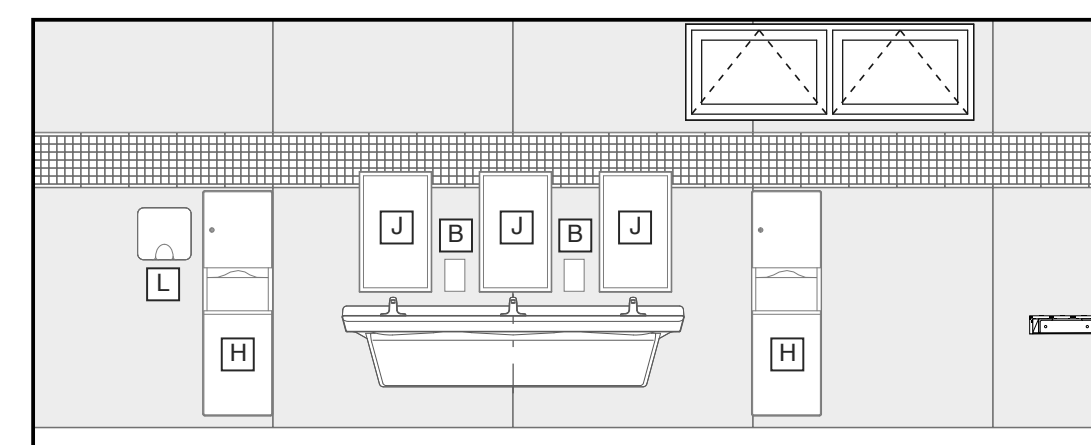
7 ELEV.-WOMEN 2
SCALE: 1/4" = 1'-0"



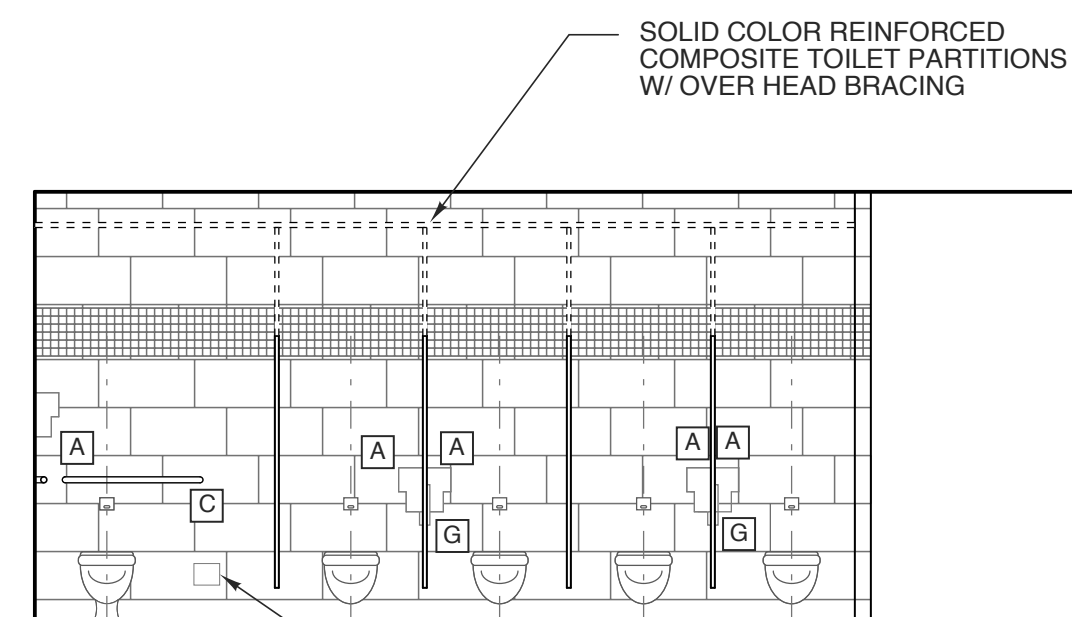
6 ELEV.-WOMEN 2
SCALE: 1/4"= 1'-0"



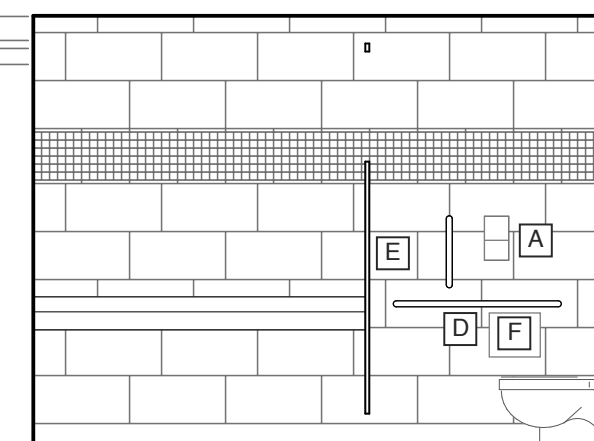
5 ELEV.-WOMEN 2
SCALE: 1/4"= 1'-0"



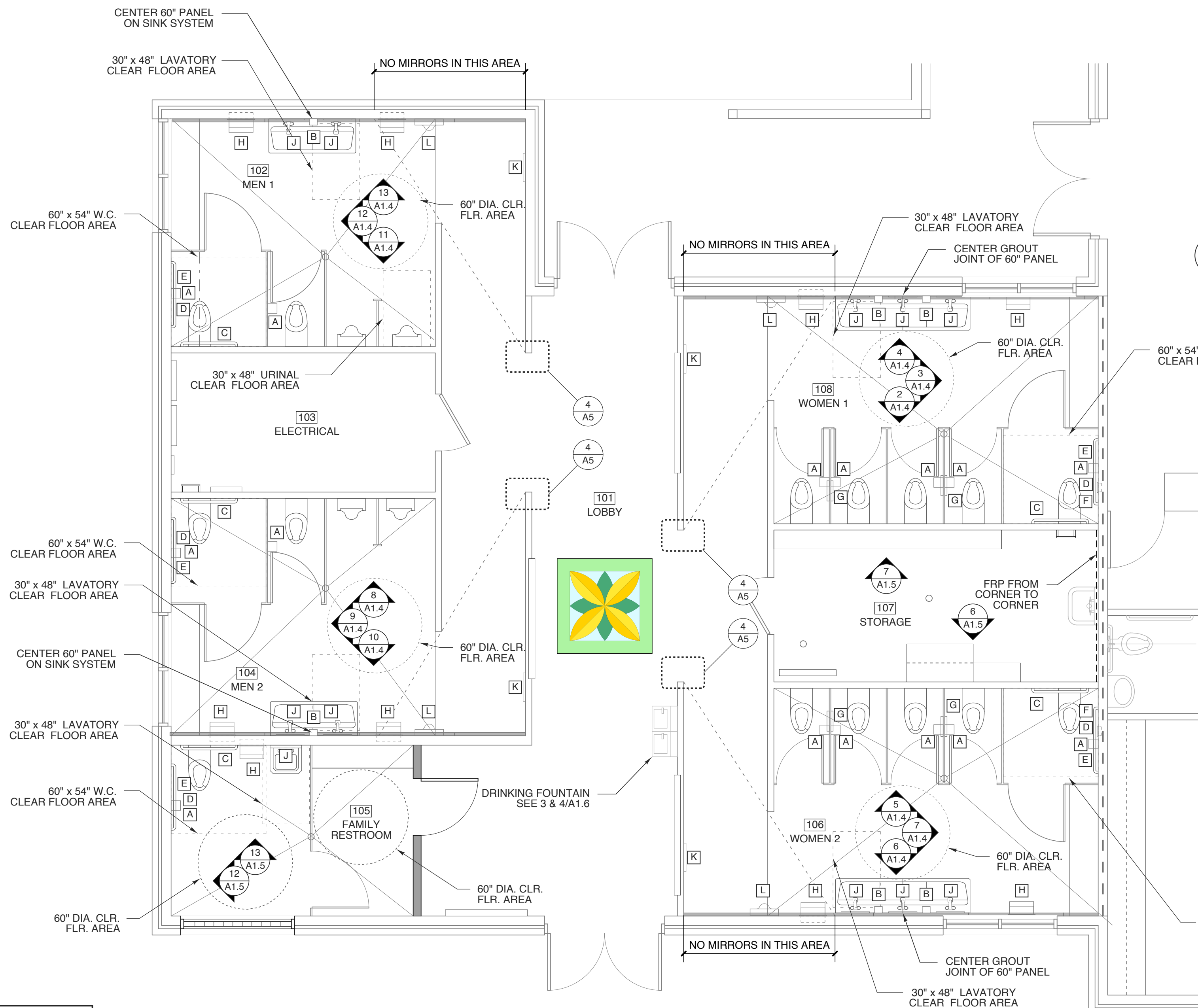
4 ELEV.-WOMEN 1
SCALE: 1/4"= 1'-0"



2 ELEV.-WOMEN 1
SCALE: 1/4" = 1'-0"



3 ELEV.-WOMEN 1
SCALE: 1/4" = 1'-0"



TILE NOTES

WALL TILE TO BE APPLIED TO CEMENT BOARD AS RECOMMENDED BY MANUFACTURER

GROUT JOINTS TO BE 1/8".

ALL GROUT TO BE EPOXY.

CAULK ALL INSIDE CORNERS AT TILE

TERRAZZO NOTES

EXISTING SLAB TO BE MODIFIED TO MEET LEVELNESS REQUIREMENT.

NEW CONCRETE IN RECESSED AREAS WHERE MUD BED HAS BEEN REMOVED TO MEET LEVELNESS AND FINISH REQUIREMENTS.

EXISTING CRACKS TO BE TREATED WITH CRACK SUPPRESSION MEMBRANE.

MOISTURE VAPOR PRIMER REQUIRED ON ALL AREAS TO RECEIVE TERRAZZO.

THIRD PARTY MOISTURE TEST BY GC.

TERRAZZO TO RECEIVE HIGH POLISH (3,000 GRIT) FINISH.

SEE SPECIFICATIONS FOR FURTHER DETAILS.

SEE DETAILS SHEET A5.

WALL FINISH LEGEND

60" x 60" PORCELAIN TILE PANELS
WITH BORDER

12" x 24" PORCELAIN TILES
WITH BORDER


SEE 13/A1.5 FOR MORE INFORMATION.

1 FINISH PLAN



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PROJECT TITLE
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US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

DRAWING TITLE
FINISH PLAN

SHEET 7 OF 13

A1.4

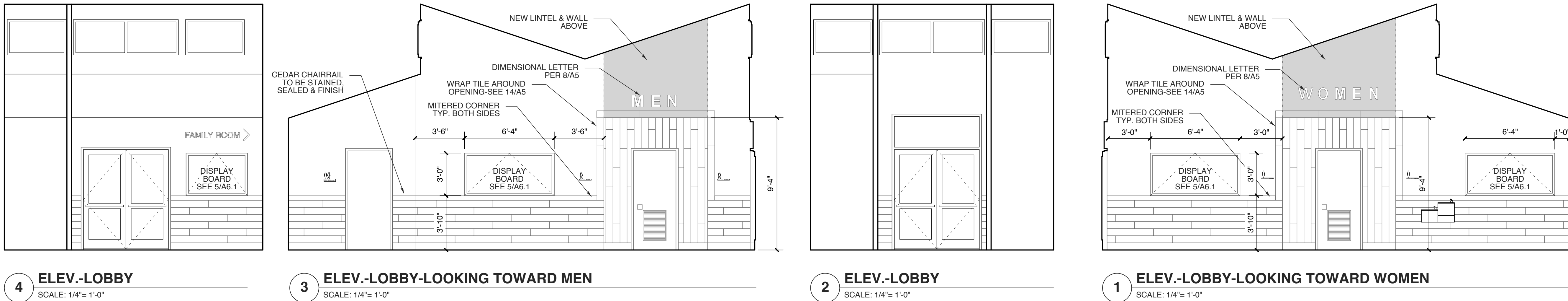
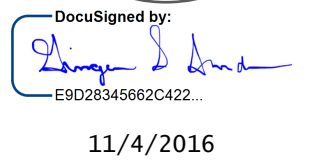
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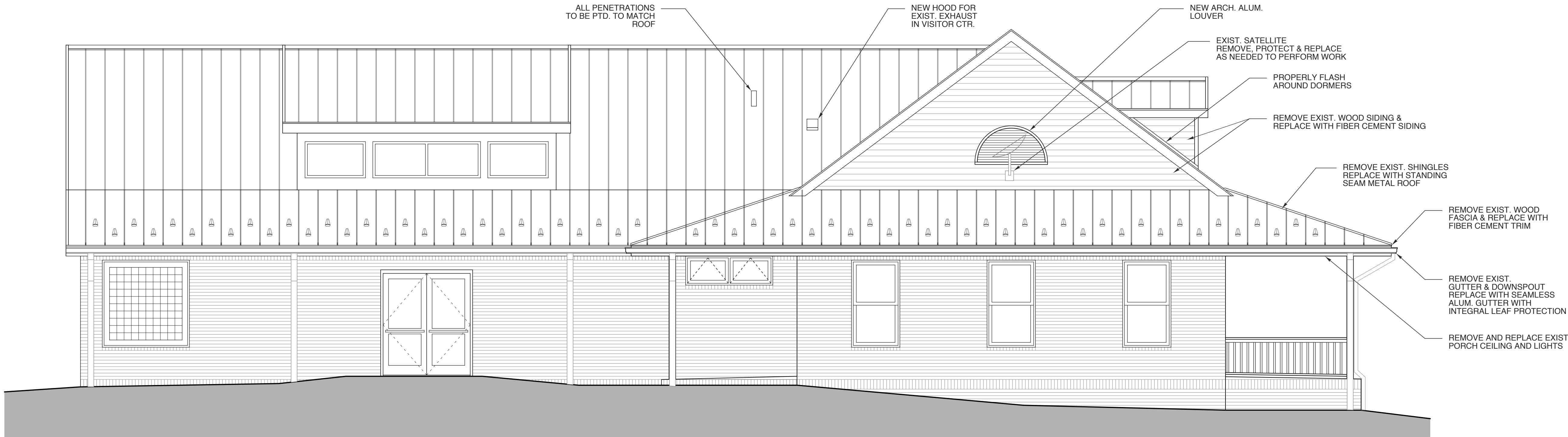
SHEET 8 OF 13

A1.5

PLOT DATE	11/2/1
REVISION	00/00/0

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2 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



1 EAST ELEVATION
SCALE: 1/4" = 1'-0"

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US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b
DRAWING TITLE
ELEVATIONS

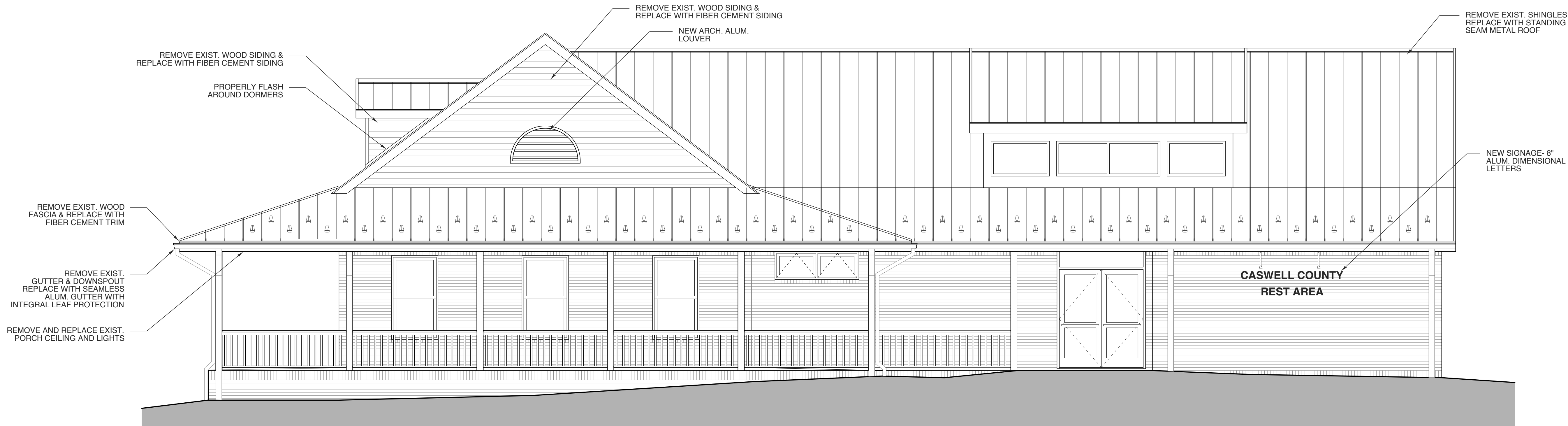
SHEET 9 OF 13

A2.1

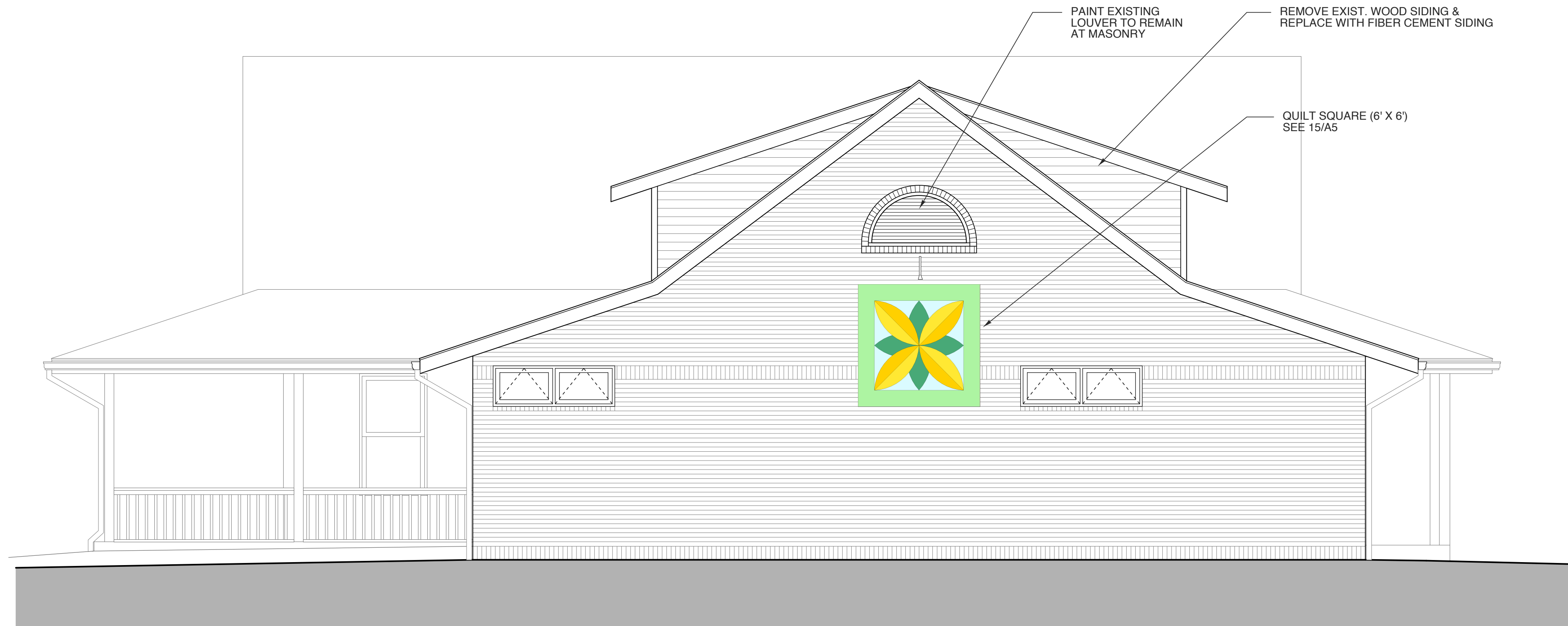
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2 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



1 WEST ELEVATION
SCALE: 1/4" = 1'-0"

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US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b
DRAWING TITLE
ELEVATIONS

SHEET 10 OF 13

A2.2

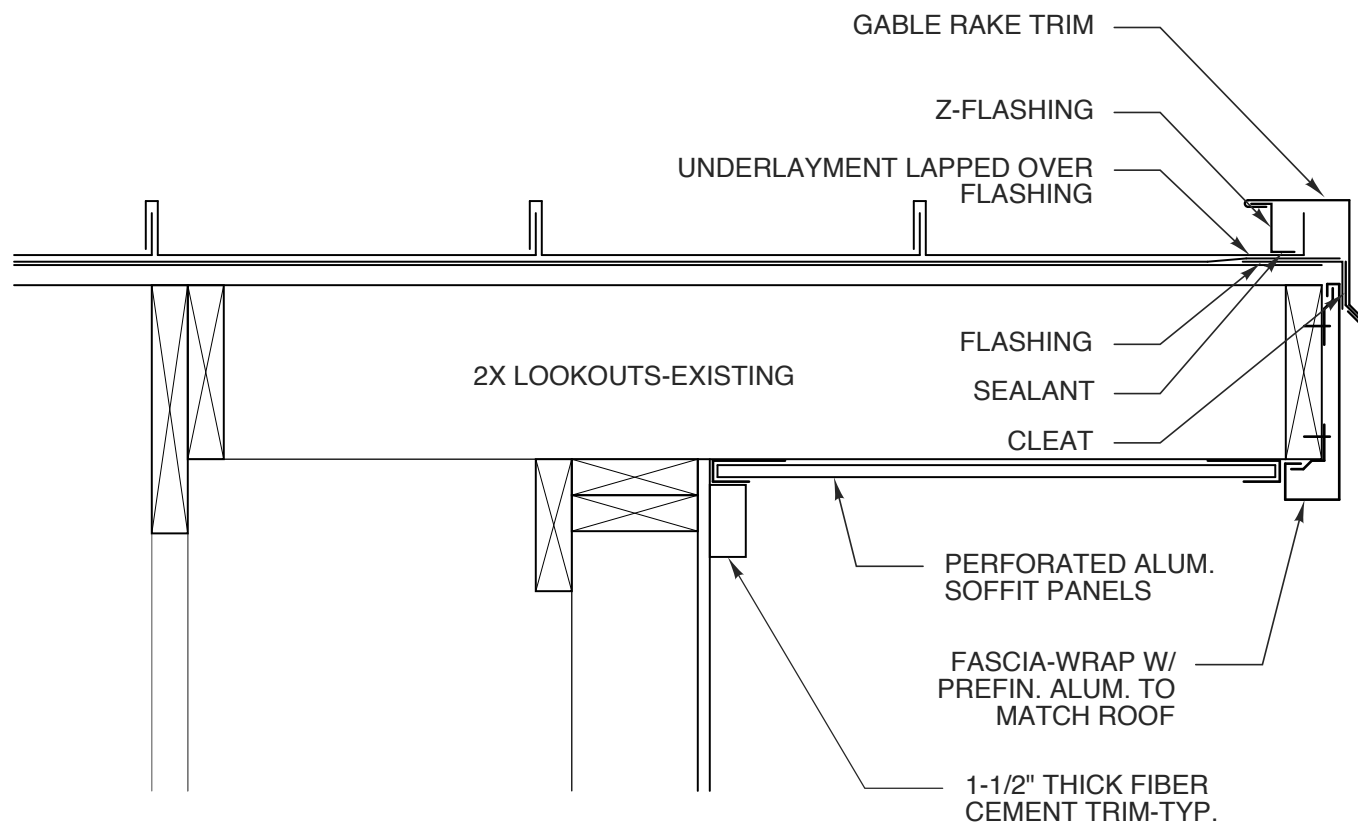
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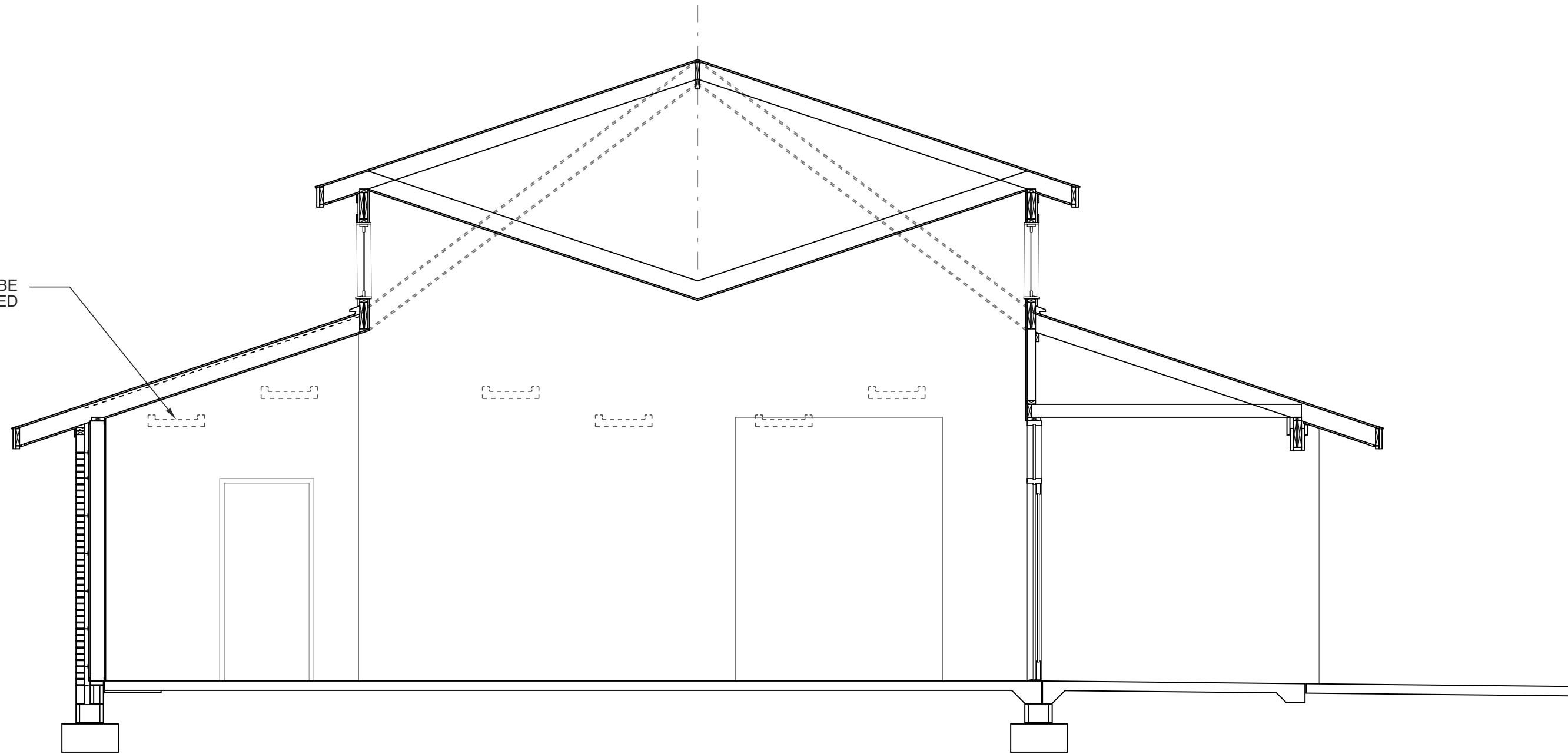
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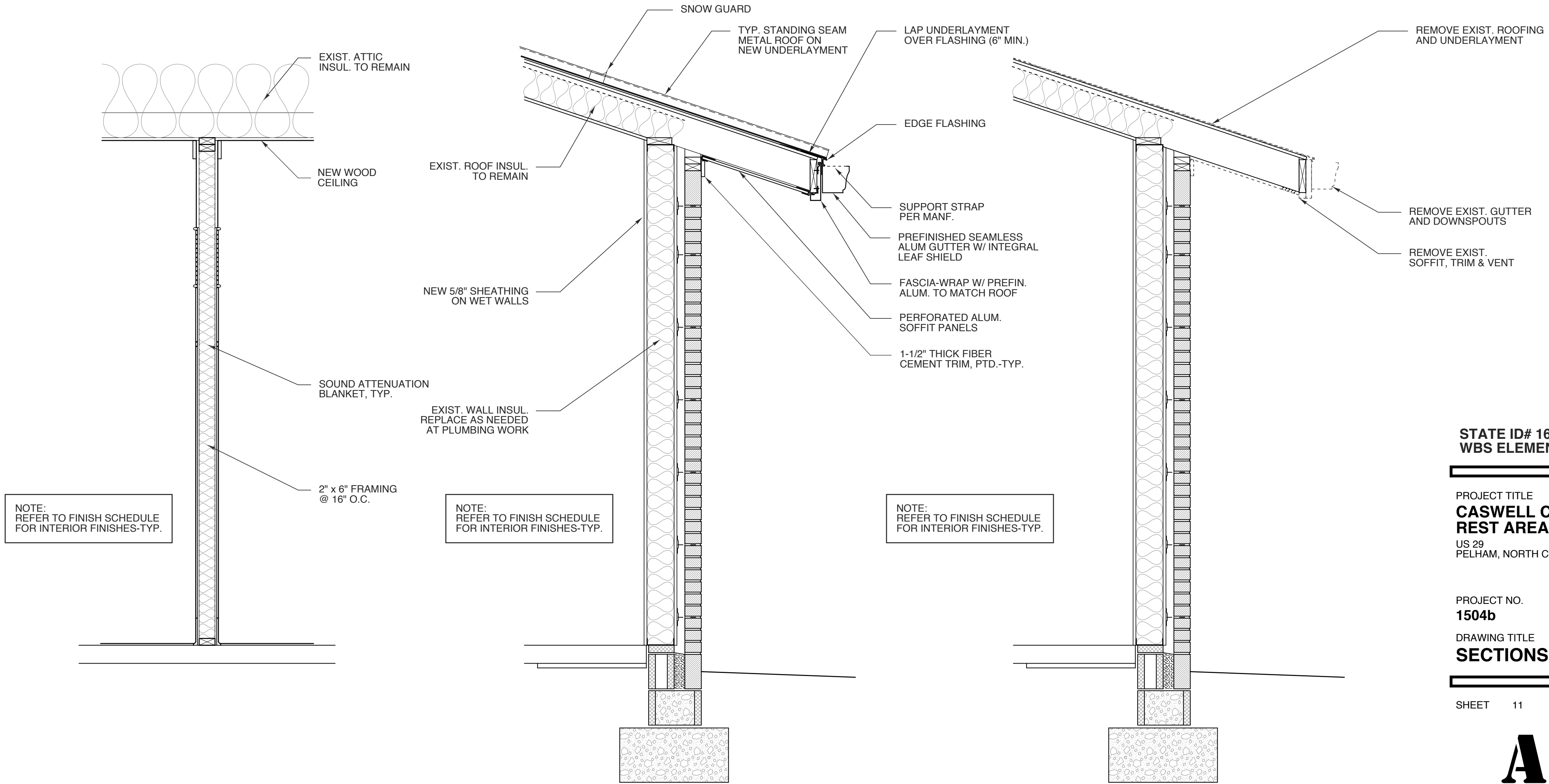
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5 DETAIL
SCALE: 1 1/2" = 1'-0"



4 BUILDING SECTION THRU LOBBY
SCALE: 1/4" = 1'-0"



NOTE:
REFER TO FINISH SCHEDULE
FOR INTERIOR FINISHES-TYP.

NOTE:
REFER TO FINISH SCHEDULE
FOR INTERIOR FINISHES-TYP.

NOTE:
REFER TO FINISH SCHEDULE
FOR INTERIOR FINISHES-TYP.

3 NEW INT. WALL SECTION
SCALE: 3/4" = 1'-0"

2 TYP. EXT. WALL SECTION
SCALE: 3/4" = 1'-0"

1 TYP. EXISTING EXT. WALL SECTION
SCALE: 3/4" = 1'-0"

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REST AREA**
US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

DRAWING TITLE
SECTIONS

SHEET 11 OF 13

A3

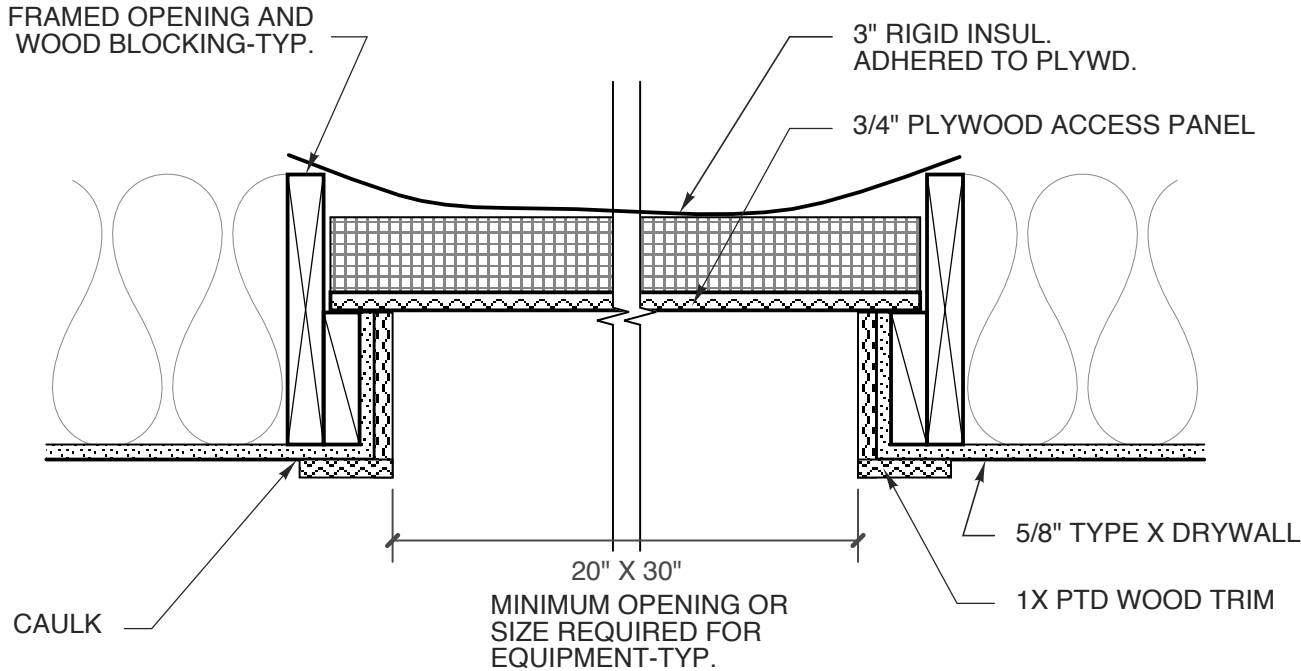
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REVISION 00/00/08

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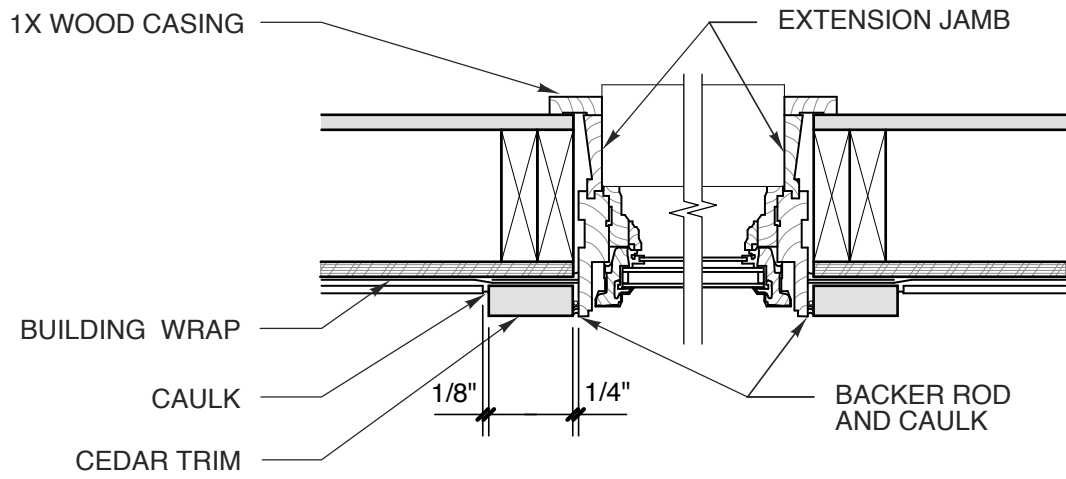
WINDOW SCHEDULE							
MARK	W	SIZE	H	TYPE	MATERIAL	GLASS	REMARKS
A	6'-0"	x	2'-0"	1	VINYL CLAD WOOD	1" INSUL. LOW E GLASS	OBSCURE GLASS
B	6'-0"	x	6'-0"	2	VINYL	INSUL. GLASS BLOCK	OBSCURE GLASS
C	3'-0"	x	6'-0"	3	VINYL CLAD WOOD	1" INSUL. LOW E GLASS	---
D	4'-2"	x	2'-6"	4	VINYL CLAD WOOD	1" INSUL. LOW E GLASS	---
E	7'-5"	x	2'-6"	5	VINYL CLAD WOOD	1" INSUL. LOW E GLASS	---
F	2'-6"	x	3'-6"	6	VINYL CLAD WOOD	1" INSUL. LOW E GLASS	---
NOTES: -SEE WINDOW TYPE ELEVATIONS AND DETAILS. -FIELD VERIFY ALL EXISTING OPENING SIZES. DIMENSIONS GIVEN FOR REFERENCE. -INCLUDE THERMAL BREAK PER MANUFACTURER'S STANDARDS WITH ALL FRAMES.							

DOOR SCHEDULE							
MARK	DOOR			FRAME			REMARKS
	SIZE	MAT'L	TYPE	TYPE	DETAILS	HDWR SET NO.	
1	2-3'-0" x 7'-0" x 1-3/4"	ALUM	A	A	4/A4	1	---
2	2-3'-0" x 7'-0" x 1-3/4"	ALUM	A	B	4/A4	2	---
3	3'-0" x 7'-0" x 1-3/4"	PTD. STL.	C	C	8/A4	3	---
4	3'-0" x 7'-0" x 1-3/4"	PTD. STL.	B	C	8/A4	4	---
5	3'-0" x 7'-0" x 1-3/4"	PTD. STL.	B	C	8/A4	4	---
6	2-3'-0" x 7'-0" x 1-3/4"	ALUM.	A	B	4/A4	1	---
7	2-3'-0" x 7'-0" x 1-3/4"	ALUM.	A	B	4/A4	2	---
8	3'-0" x 7'-0" x 1-3/4"	existing	---	---	---	---	no changes
NOTES: - COORDINATE KEYING OF HARDWARE WITH OWNER - DOOR HANDLES TO BE LEVER HANDLE				HARDWARE SETS 1. ADA DOOR OPERATOR WITH PUSH PAD SEE SPEC FOR REMAINDER OF HARDWARE SETS			

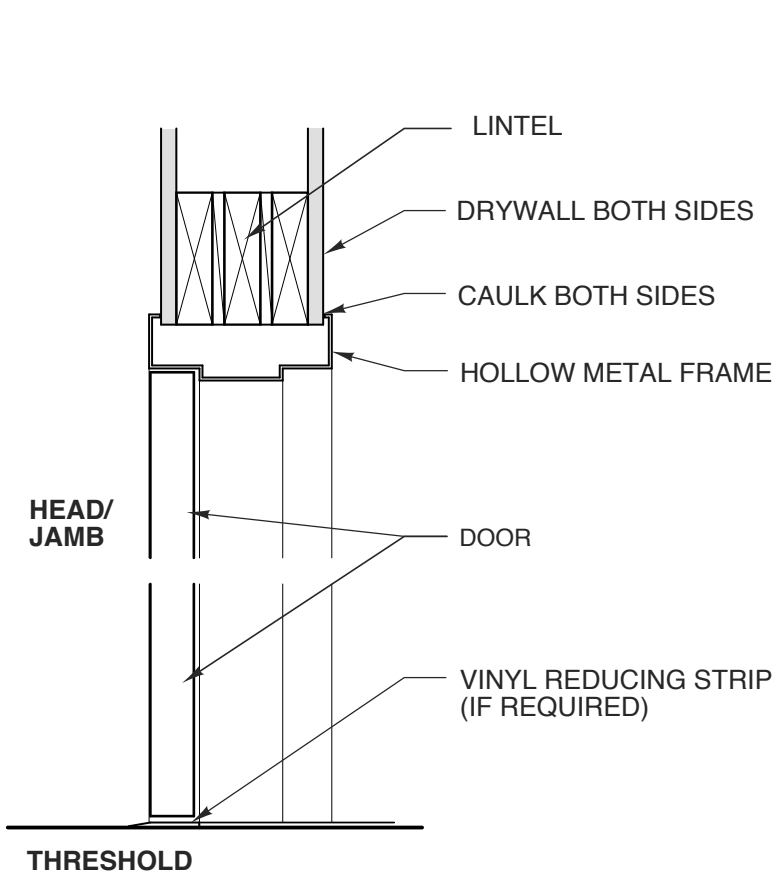
ROOM FINISH SCHEDULE											
MARK	ROOM NAME	FLOOR	BASE	WALL				WAINSCOT	CEILING		REMARKS / NOTES
				N	E	S	W		MATERIAL	HGT.	
101	LOBBY	TERAZZO	TERAZZO	PTD. DW. ABOVE				TILE TO CEDAR CHAIRRAIL	STD. CEDAR	EXIST.	---
102	MEN 1	TERAZZO	TERAZZO	TILE TO CLG.				---	PTD. DW.	EXIST.	---
103	ELECTRICAL	CONC.	---	NEW PLYWOOD TO BE PTD.				---	PTD. DW.	EXIST.	---
104	MEN 2	TERAZZO	TERAZZO	TILE TO CLG.				---	PTD. DW.	EXIST.	---
105	FAMILY RESTROOM	TERAZZO	TERAZZO	TILE TO CLG.				---	PTD. DW.	EXIST.	---
106	WOMEN 2	TERAZZO	TERAZZO	TILE TO CLG.				---	PTD. DW.	EXIST.	---
107	STORAGE	CONC.	---	NEW PLYWOOD TO BE PTD.				---	PTD. DW.	EXIST.	---
108	WOMEN 1	TERAZZO	TERAZZO					---	PTD. DW.	EXIST.	---
109	VISITOR CENTER	CARPET	RUBBER	PTD. DW.				---	PTD. DW.	EXIST.	---
110	SERVICE COUNTER	CARPET	RUBBER	PTD. DW.				---	PTD. DW.	EXIST.	---
111	STAFF RESTROOM	existing finishes to remain; repair and paint as needed for replacement of windows									
112	STORAGE	existing finishes to remain; repair and paint as needed for replacement of windows									
113	OFFICE	existing finishes to remain; repair and paint as needed for replacement of windows									
114	BREAK ROOM	existing finishes to remain; repair and paint as needed for replacement of windows									
115	COVERED PORCH	WD. DECK	existing	existing				---	PTD. FIBER CEMENT	EXIST.	
SEE INT. ELEVATIONS (A1.5) AND FINISH PLAN (A1.4) FOR MORE INFORMATION ON WALL FINISHES.											



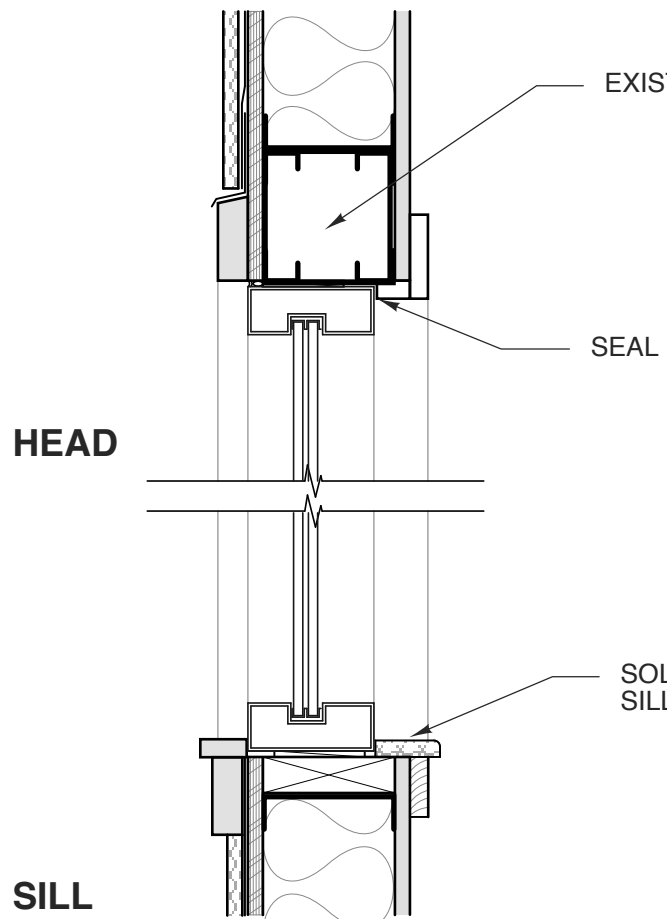
10 ACCESS DOOR DETAIL
SCALE: 1 1/2" = 1'-0"



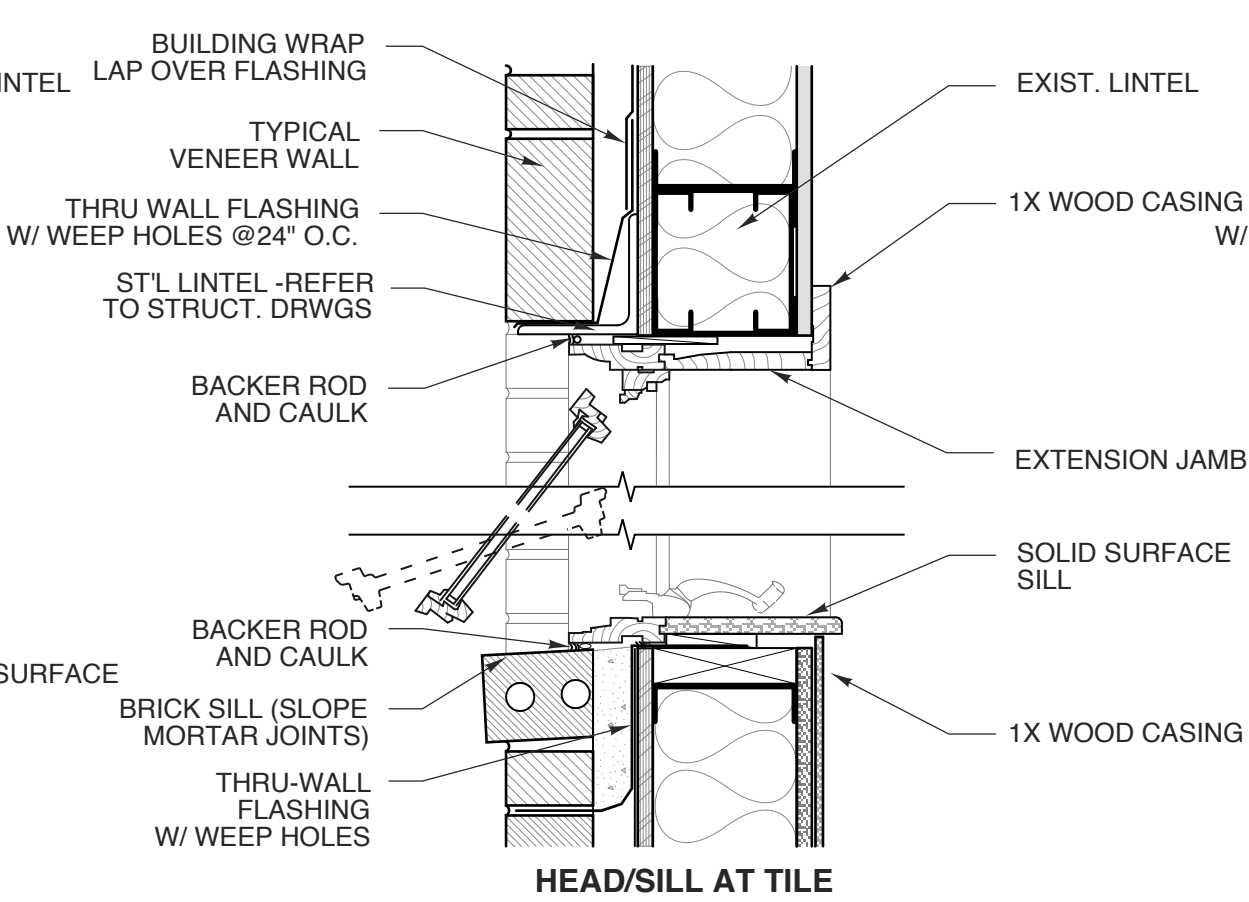
9 AWNING WINDOW - JAMB
SCALE: 1-1/2" = 1'-0"



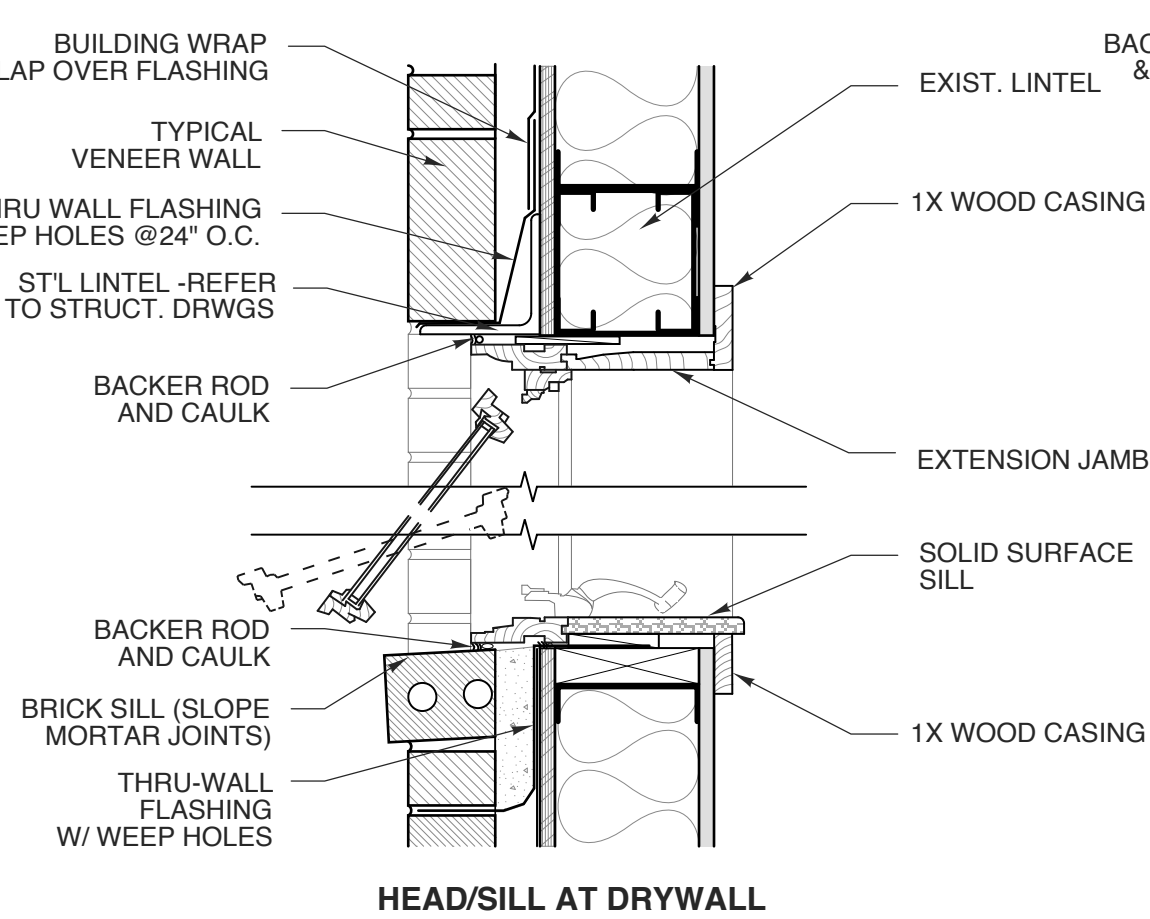
8 INT. HM FRAME
SCALE: 1 1/2" = 1'-0"



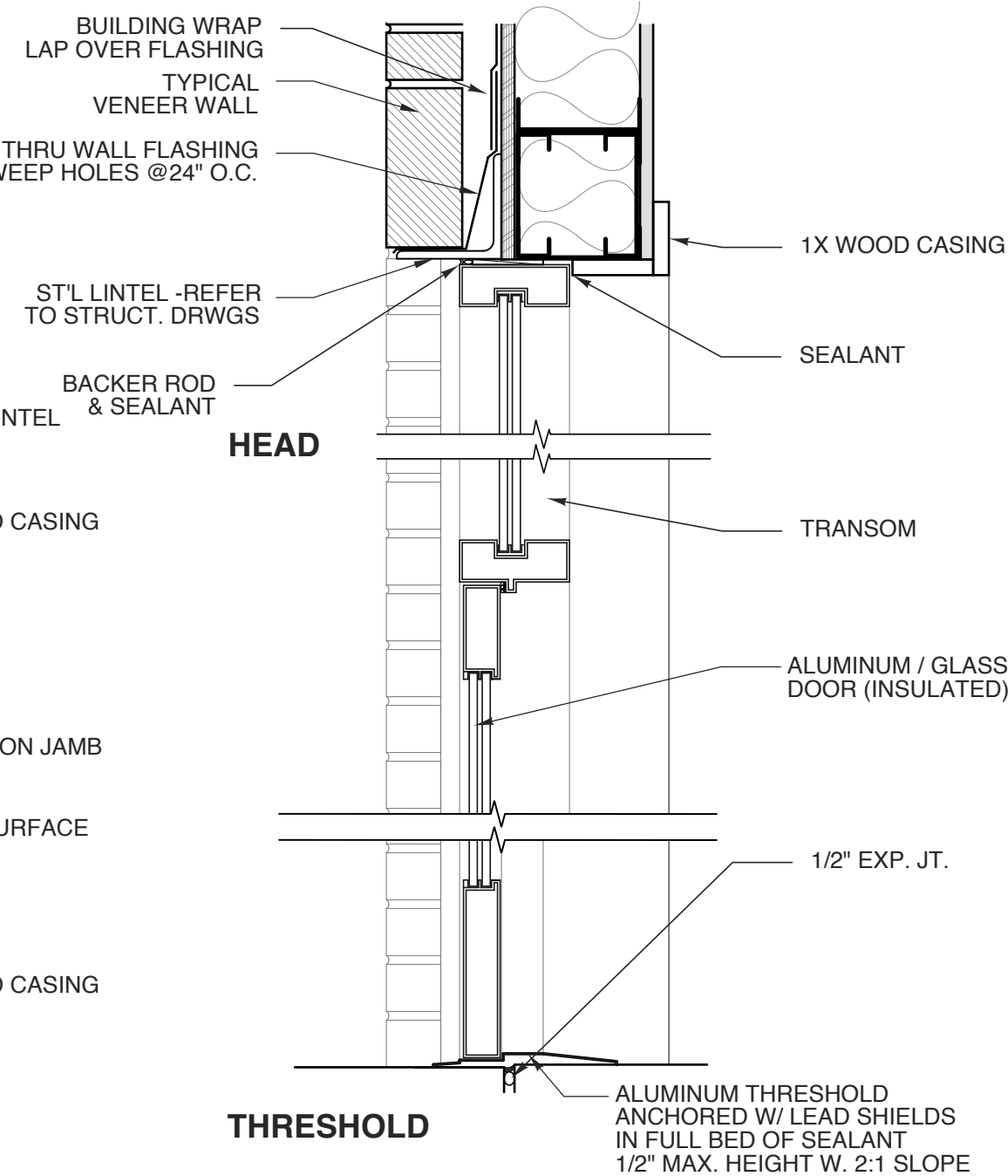
7 FIXED WINDOW
SCALE: 1-1/2" = 1'-0"



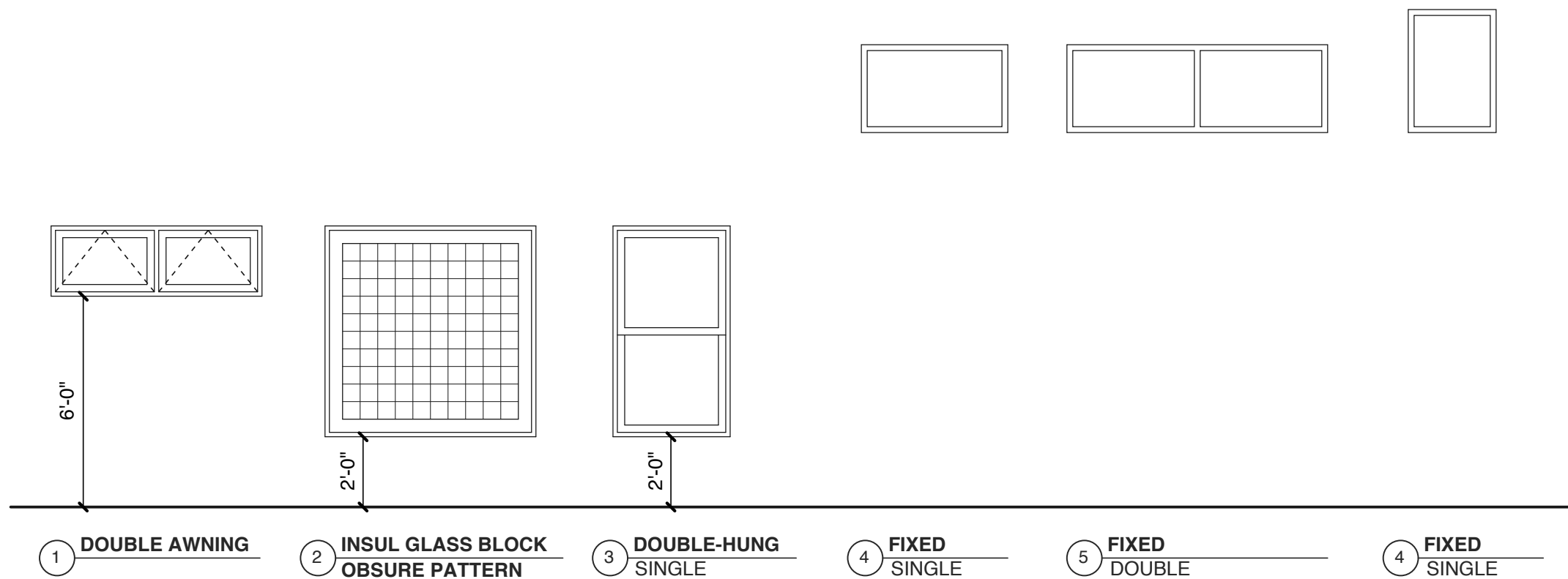
6 AWNING WINDOW DETAILS
SCALE: 1-1/2" = 1'-0"



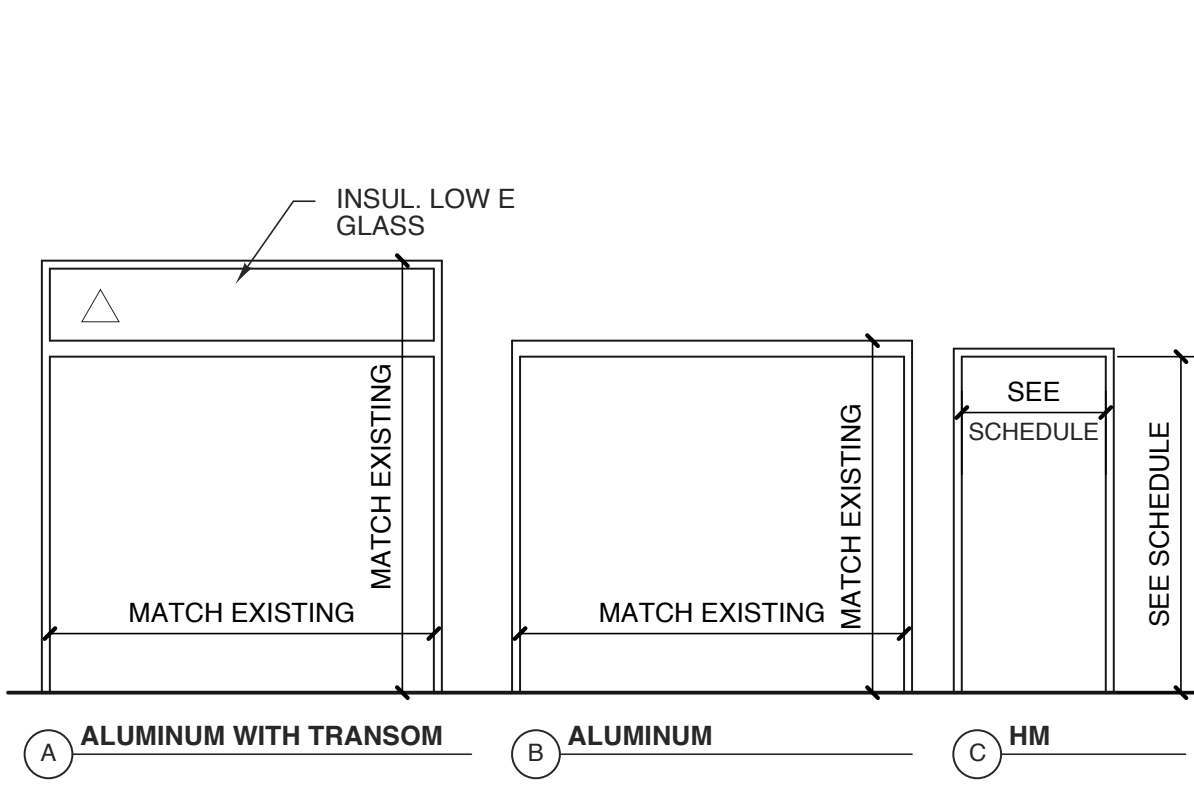
5 AWNING WINDOW DETAILS
SCALE: 1-1/2" = 1'-0"



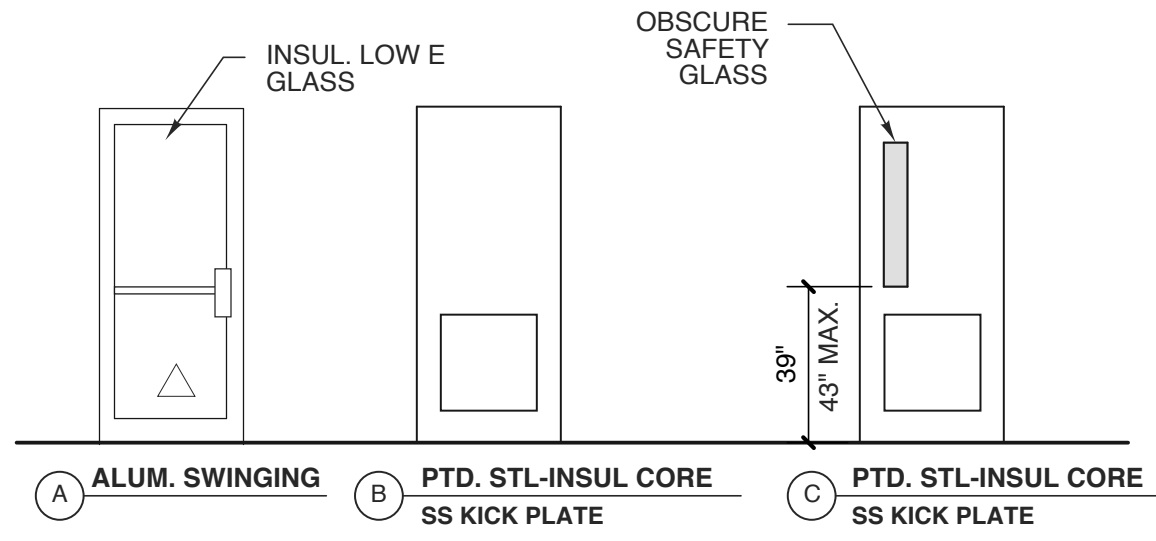
4 STOREFRONT DOOR
SCALE: 1-1/2" = 1'-0"



3 WINDOW TYPES
SCALE: 1/4" = 1'-0"



2 DOOR FRAME TYPES
SCALE: 1/4" = 1'-0"



1 DOOR TYPES
SCALE: 1/4" = 1'-0"

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REST AREA
US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

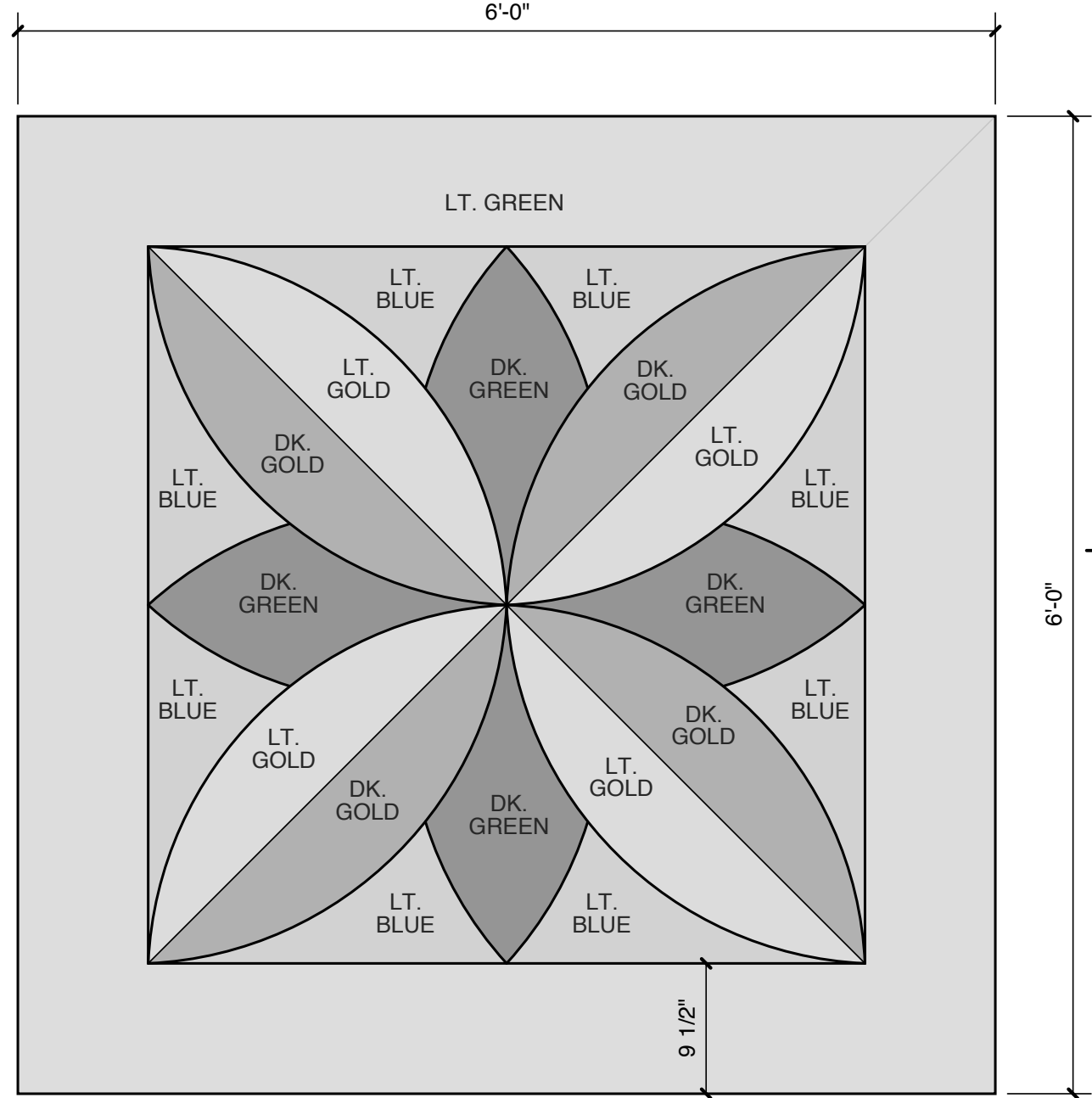
DRAWING TITLE
SCHEDULES/DETAILS

SHEET 12 OF 13

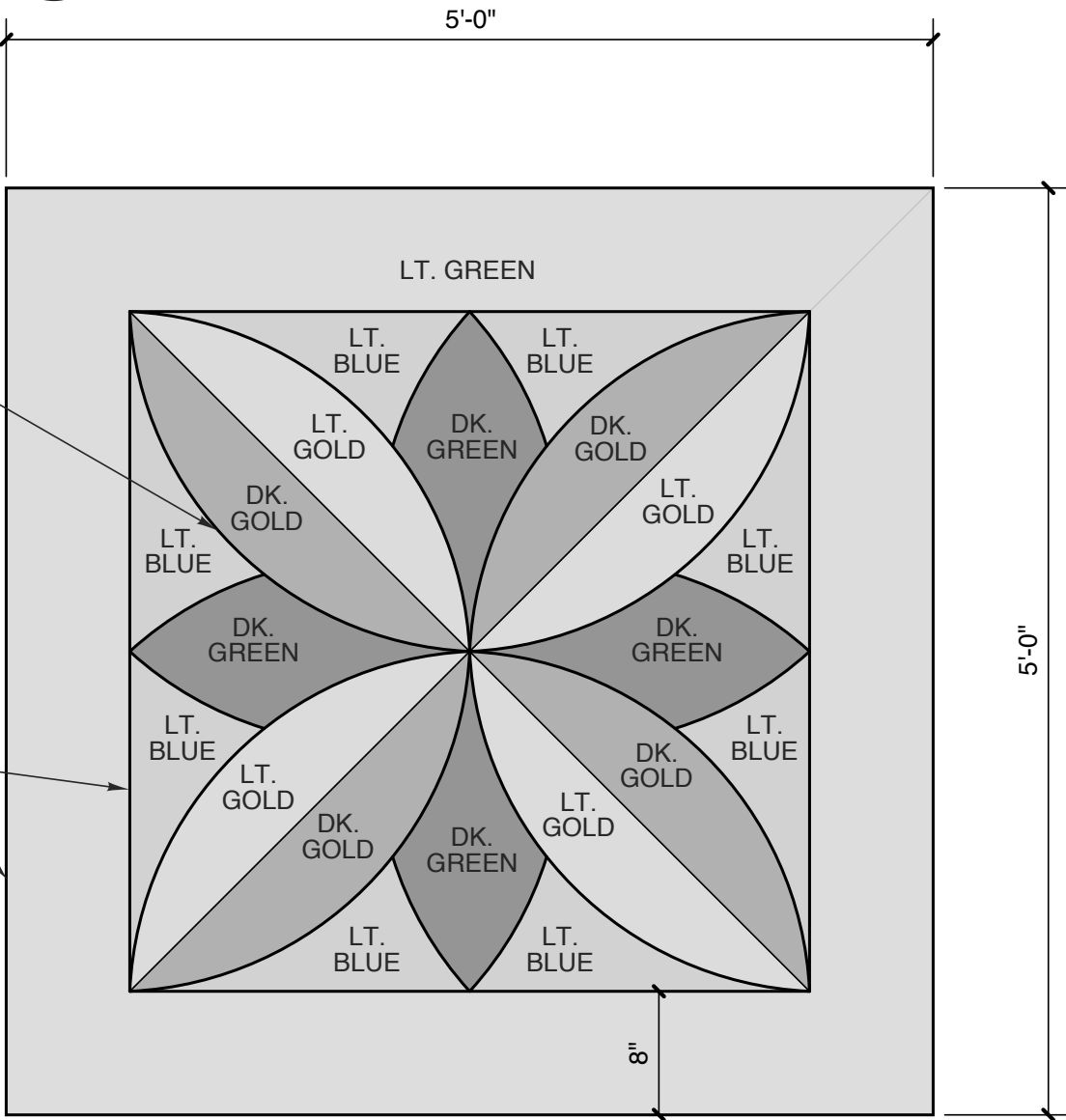
A4

PLOT DATE 11/2/16
REVISION 00/00/08

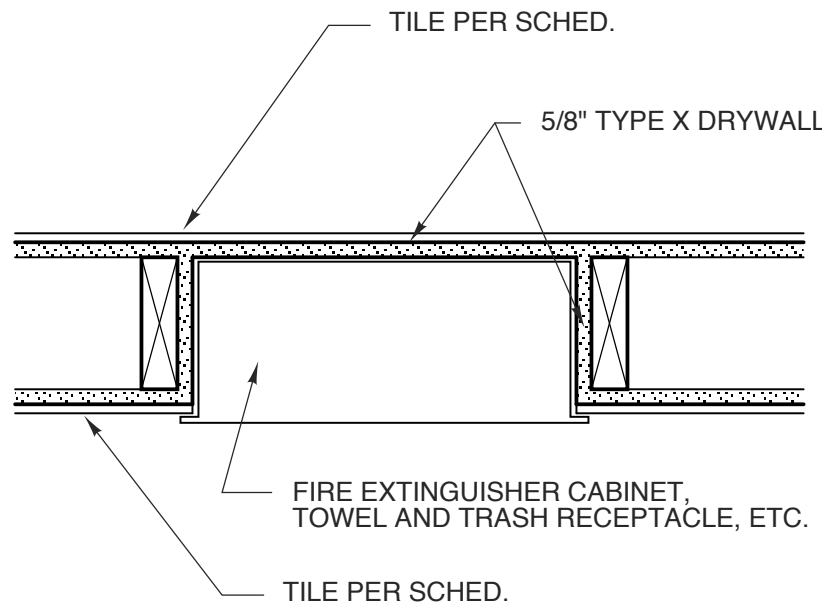
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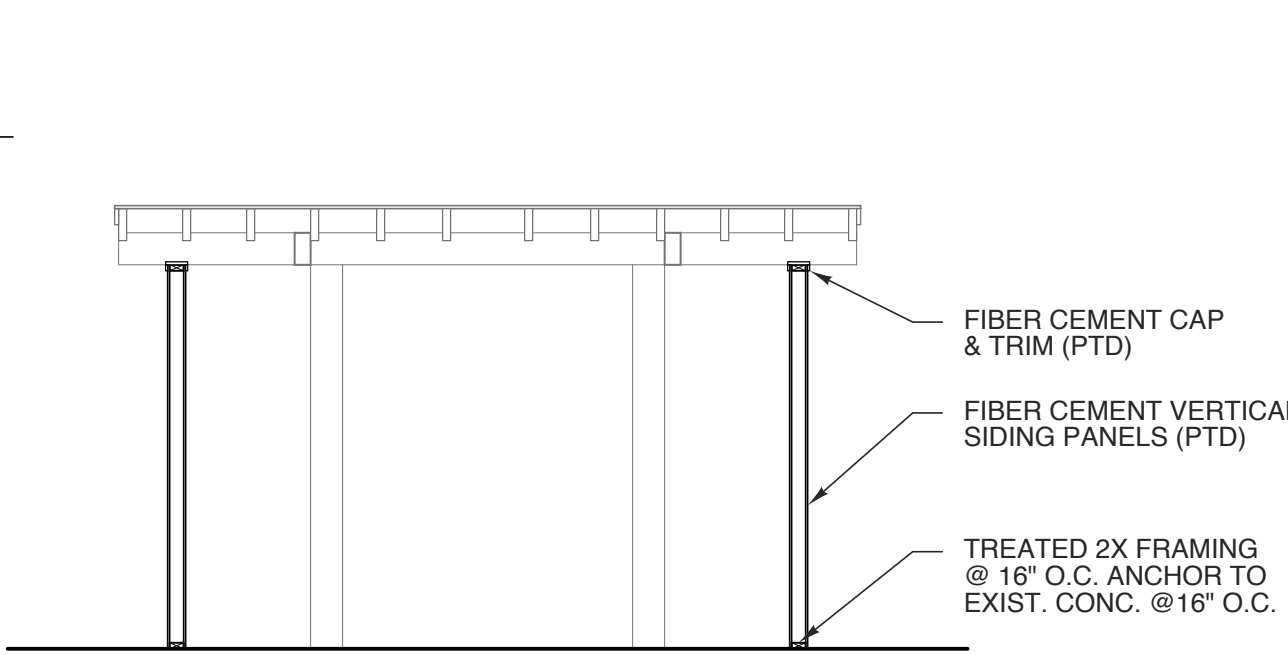
15 QUILT SQUARE PATTERN-EXT.
SCALE: 1" = 1'-0"



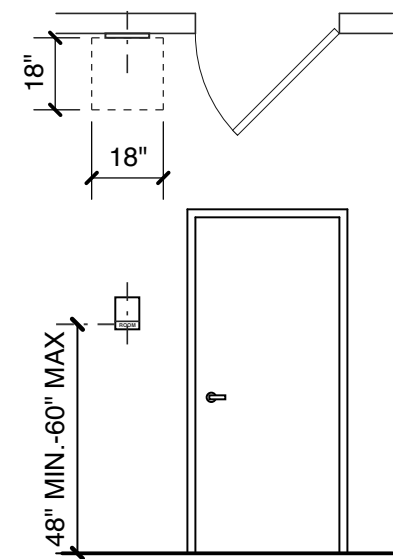
14 QUILT SQUARE PATTERN-TERRAZZO
SCALE: 1" = 1'-0"



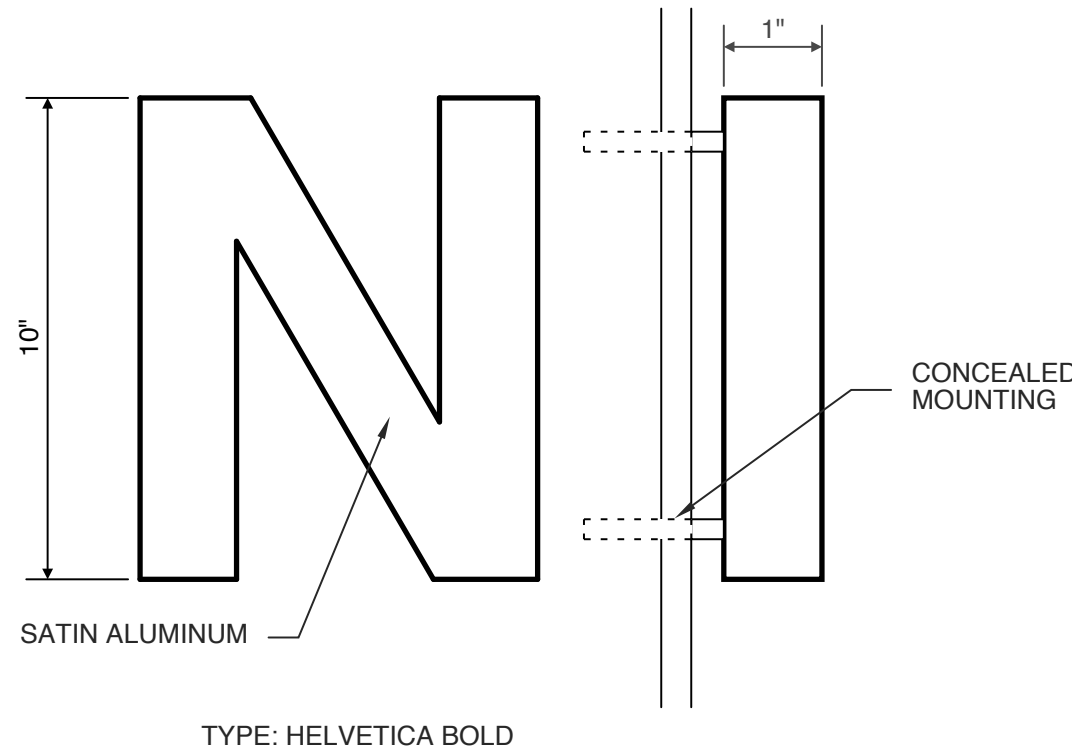
5 WALL MOUNTED ACCESSORIES
SCALE: 1 1/2" = 1'-0"



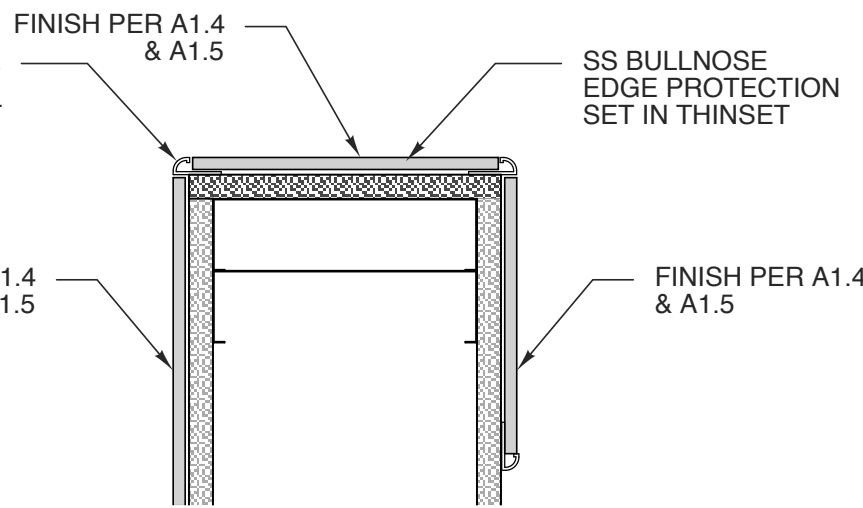
13 VENDING - SECTION
SCALE: 1/4" = 1'-0"



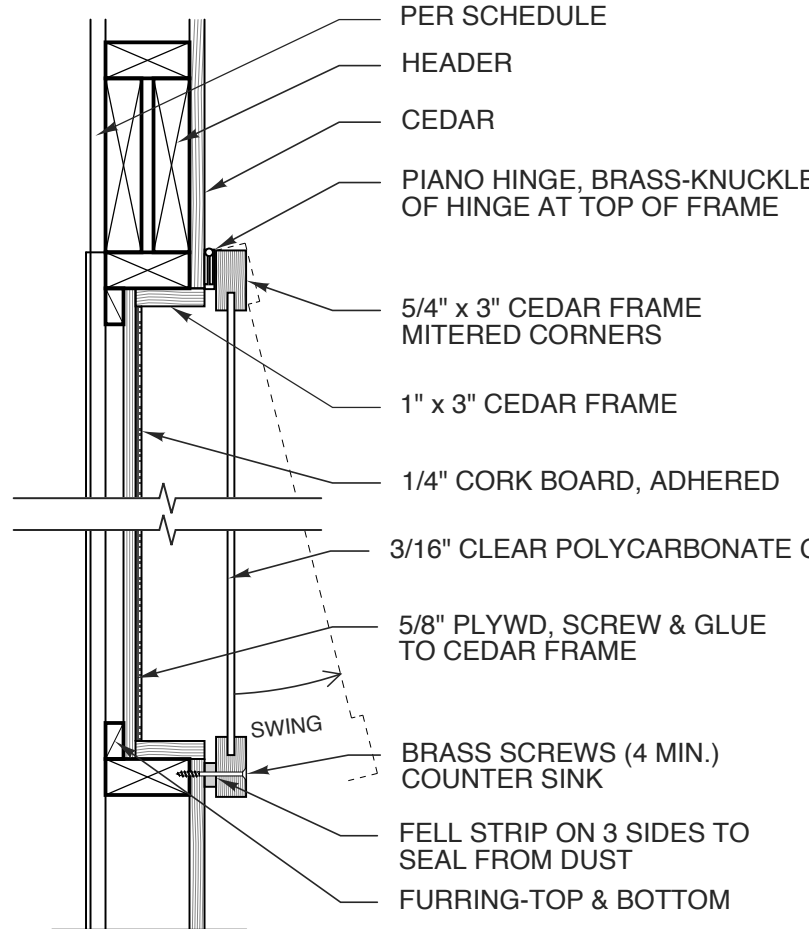
10 SIGNAGE PLACEMENT
SCALE: 1/4" = 1'-0"



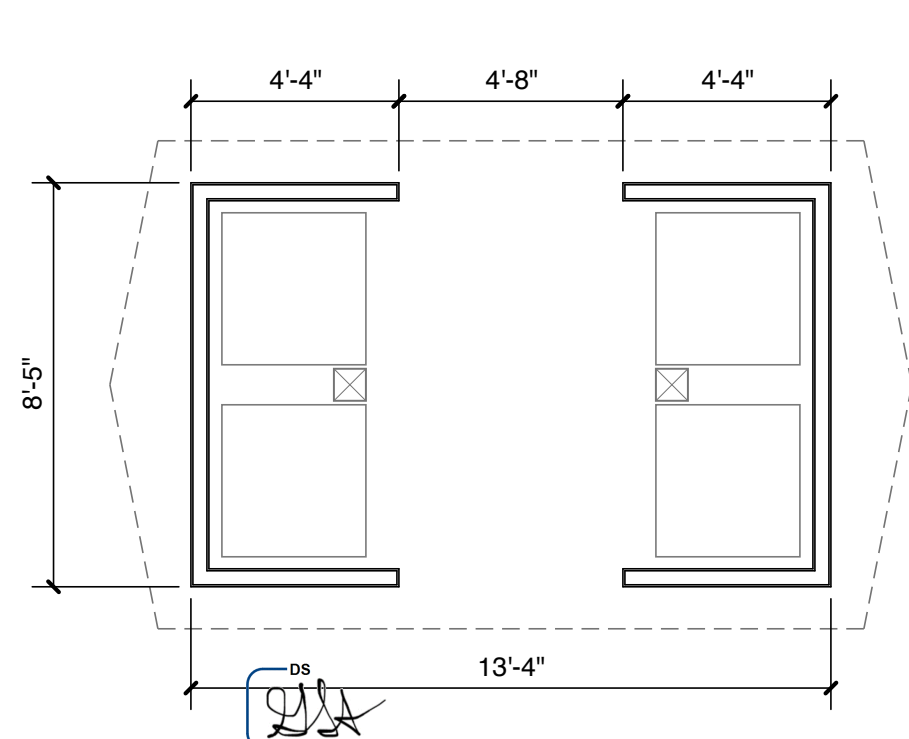
8 DIMENSIONAL LETTER
SCALE: 3" = 1'-0"



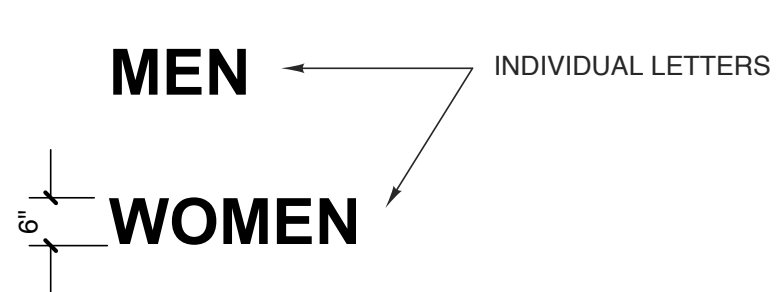
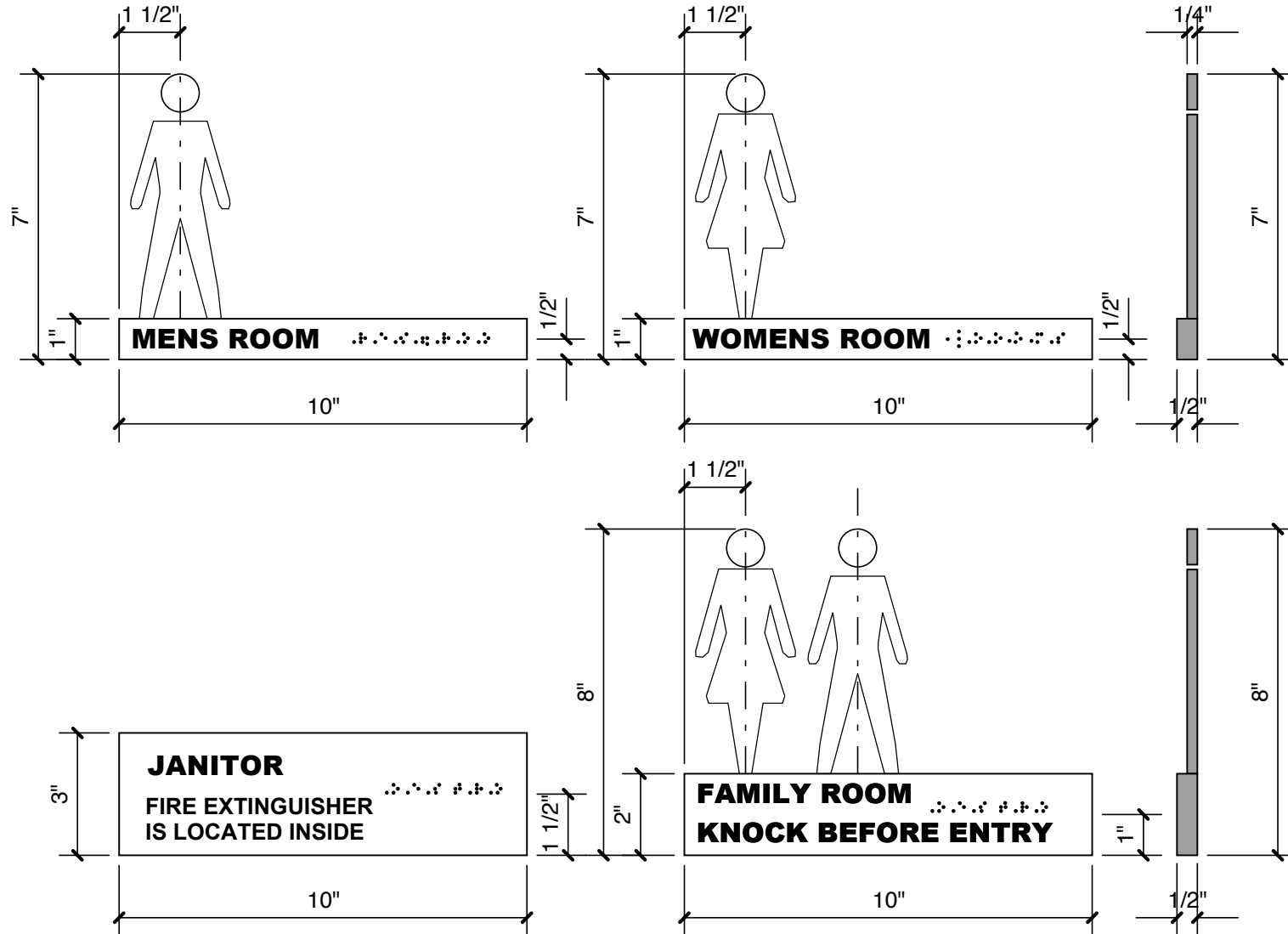
4 OUTSIDE CORNER/END WALL
SCALE: 3" = 1'-0"



3 DISPLAY DETAIL
SCALE: 1 1/2" = 1'-0"

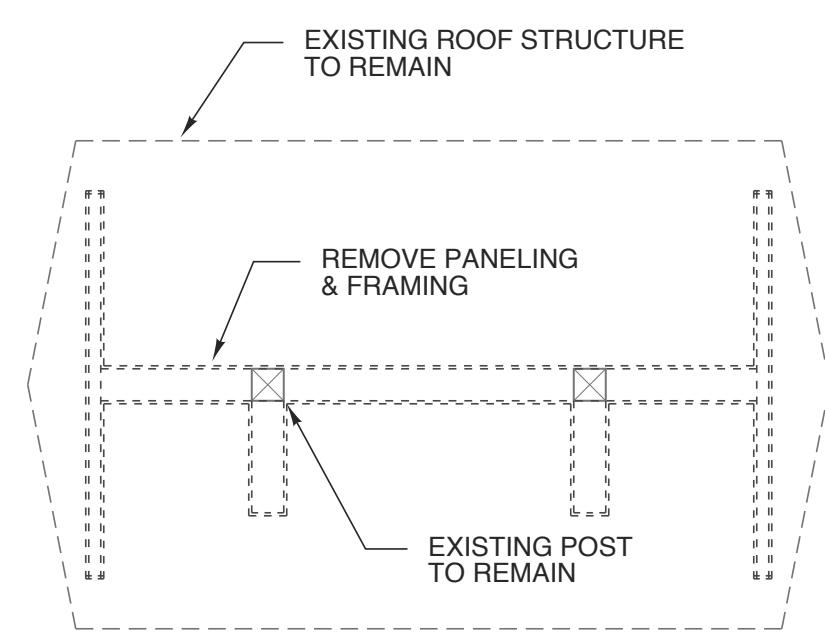


12 VENDING - REVISED
SCALE: 1/4" = 1'-0"

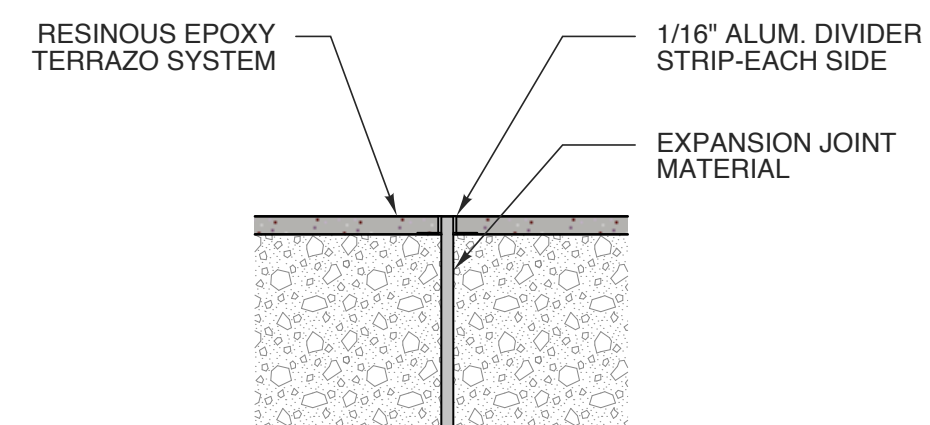


SIGNAGE NOTES

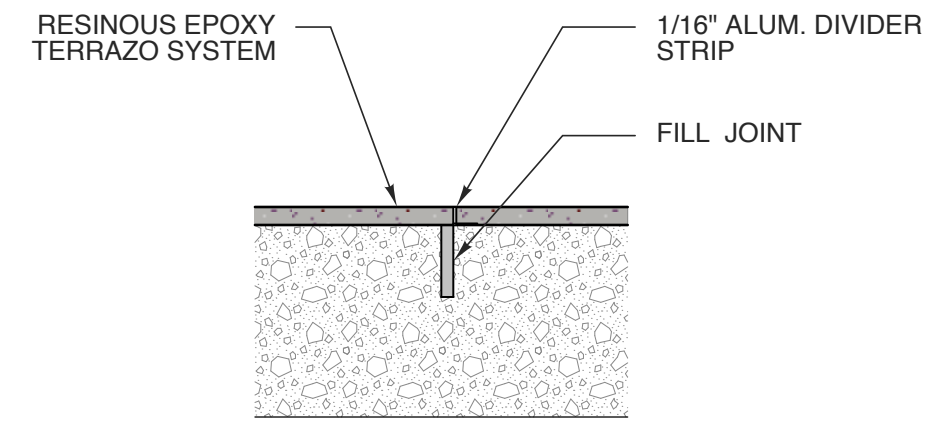
1. SIGNS TO BE CAST ALUMINUM
2. RAISED METAL BEAD BRAILLE
3. BLACK SILKSCREENED LETTERING
4. HELVETICA BOLD FONT, 3/8" TEXT HT.
5. INDIVIDUAL METAL LETTERS TO BE 1/4" THICK MILLED BRUSHED ALUMINUM PLATE
6. SIGNAGE SHALL COMPLY WITH ICC A117.1-2009, CH. 7
7. SEE DETAIL 10/A5



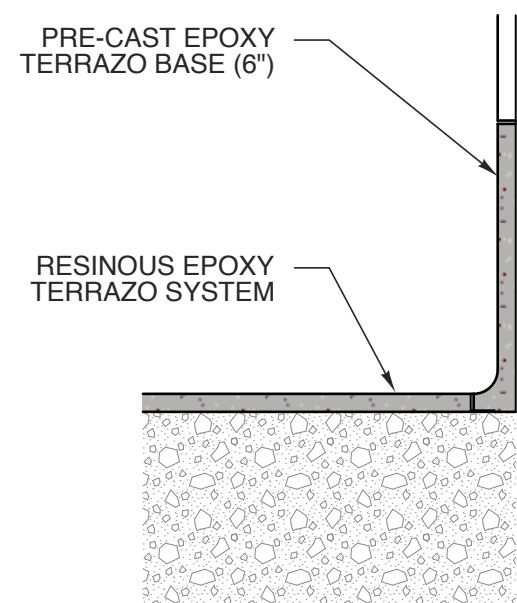
11 VENDING - DEMO
SCALE: 1/4" = 1'-0"



9 EXP. JOINT
SCALE: 3" = 1'-0"



6 CONTROL JOINT
SCALE: 3" = 1'-0"



1 TERRAZO BASE
SCALE: 3" = 1'-0"

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Ginger S. Anderson
E903345682C422
11/4/2016

STATE ID# 16-16107-01A
WBS ELEMENT 51213.022

PROJECT TITLE
**CASWELL COUNTY
REST AREA**
US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

DRAWING TITLE
DETAILS

SHEET 13 OF 13

A5

PLOT DATE 11/3/16
REVISION 00/00/08

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DIVISION 15A – PLUMBING

1.1 DESCRIPTION OF THE WORK

- A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
1. Plumbing fixtures, water heaters, and any other equipment necessary.
 2. Cold and hot water piping and insulation.
 3. DWV piping.
 4. Connection of all equipment; drain, vent, water.
- B. All work under this contract shall be installed in compliance with the latest edition of the following codes and standards insofar as they apply.
1. The National Electrical Code.
 2. 2012 N.C. Building Code Plumbing Edition
 3. American Society of Sanitary Engineering Standard 1010.
 4. All local codes and ordinances.
- C. These codes are minimum standards. If codes require a more stringent method of construction than the specifications require, the codes shall govern.
- D. The Plumbing Contractor shall be licensed in the State of North Carolina and have all local licenses required for the work.
- E. Obtain all permits, licenses, inspections, etc., required for the work, and pay for the same.

1.2 INTENT

- A. The intent of these specifications and accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Plumbing Contractor shall take this into consideration and include in his base bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

1.3 COORDINATION

- A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming operations.
- B. Locations shown are approximate. The Plumbing Contractor shall refer to the architectural drawings for placement of equipment, fixtures, etc. Where locations are not clear, the Contractor shall obtain the exact locations from the Architect.
- C. Coordinate all exterior piping connections w/Architect, site contractor/plans. Verify manhole elevations and provide backwater valves as required if flood level rims are below next upstream manhole cover elevation. Fixtures with flood level rims above upstream manhole shall not discharge thru bw valve. Notify engineer of backwater valve requirement, any issue prior to bid.

1.4 SHOP DRAWINGS

- A. Shop drawings shall be submitted for plumbing fixtures and for pipe. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified.

PART 2 – PRODUCTS

2.1 FIXTURES

- A. Each fixture shall be properly supported from the building structure as required to the end effect that all fixtures and accessories will be held rigidly in place. Water pipes supplying the fixtures must also be held rigidly in place.
- B. Provide loose key angle stops and chrome plated supply pipe water supplies to fixtures.
- C. All exposed piping traps and accessories for fixtures shall be chrome plated. Provide chrome plated escutcheon plates where pipes enter walls.
- D. Provide shutoff valves for all sinks, water heaters, toilets, washing machines, refrigerator icemaker, exterior hose bibbs and all other plumbing fixtures.
- E. Provide trap primers for all floor drains in areas not served by hose bibbs.

2.2 PIPING

- A. Drain waste: All waste piping shall be Schedule 40 PVC-DWV with the following exceptions: Use cast iron piping in all return air plenums and penetrations of rated walls/floors/ceilings. Review Arch. and Mech. drawings. Use ABS or cast iron piping for drainage of fluid temperature greater than 140 deg. F for a minimum distance of 10'-0".
- B. Hot and cold water piping above grade: Type "L" copper w/solder joints (ASTM-B88), hard drawn with wrought copper fittings (ANSI B16.22) PEX piping with copper fittings may be used with owner/tenant approval, and as allowed per code.
- C. Cold water piping below grade: Type "K" copper (ASTM-B8A) soft drawn.

- D. Hangers: Use pipe hangers where required on 8-foot centers with saddles to avoid crushing insulation.
- E. Solder: 95/5. Lead free.
- F. Unions: Provide unions where indicated on drawings, in long runs of piping (except drainage) and at equipment to provide convenient disassembly. Provide dielectric unions when connecting copper tubing to equipment and piping made of ferrous materials.

2.3 CLEANOUTS

- A. Hex plugs in rough areas: Recessed plugs with cover plates in exposed locations.

2.4 SHOCK ARRESTERS

- A. Provide shock arresters as required by codes, manufacturer's recommendations and accepted industry standards for quality construction. Provide for all quick closing valves.

PART 3 – EXECUTION

3.1 CONNECTIONS

- A. This contract includes complete connection of cold water, hot water, drainage, and vent piping as required. All fittings, valves, accessories, cutoffs, drains, etc., required to complete such connections shall be included.
- B. The connection to water closets shall be made watertight with gasket and wax ring. Floor flanges shall be caulked into position. Plastic caps shall be provided on the tie down bolts, and shall be secured in place by screwing down on threaded brass washers.
- C. Where water pipes connect to exposed chrome plated trim, use proper chrome plated escutcheons.

3.2 SERVICE ACCESS

- A. All valves and accessories shall be insulated so that they can be properly serviced. In no case shall the Plumbing Contractor install equipment or other components in situations that do not meet code requirements or manufacturer's requirements. Provide access doors as required to access valves, etc.

3.3 ROUTING OF PIPING

- A. Coordinate routing of piping with others, line up work true to or at right angle to adjacent surfaces and in a workmanlike manner. Support all interior piping from building structure by means of hanger or inserts to maintain pitch of lines, to prevent vibration, and to secure piping place.
- B. Space pipe hangers 8'-0" on center for one inch and smaller pipe, 4'-0" on center for 1-1/4 inch and larger pipe. Provide expansion loops as required.
- C. Pipe hangers for insulated lines shall have suitable saddles to protect insulation.

3.4 INSULATION

- A. All H/W and C/W piping shall be insulated with a min. of 1" inch elastomeric insulation (R=6.5 min.) in unconditioned areas. See NCSCB-Plumbing Sect. 305 for all protection requirements. All H/W piping of circulating systems shall be insulated with 1" insulation per Sect. 504.5 of the NCSCB 2012 Energy Conservation Code.
- B. Provide pre-fabricated insulation kits for all sink and lavatory exposed drain and supply piping.

3.5 INSPECTIONS AND TESTS

- A. Before being concealed, all water, soil and vent piping shall be tested to determine if they are water-tight and air-tight.
- B. Prior to placing into service, entire system shall be tested for leaks in strict accordance with state and local codes.

3.6 STERILIZATION OF PIPING

- A. Sterilize the new water piping thoroughly with a solution containing not less than 50 parts per million of available chlorine, using liquid chlorine, or sodium hydrochloride solution, introduced into the system in an approved manner. The sterilizing solution shall remain in the system in an approved manner. The sterilizing solution shall remain in the system for a period of 24 hours. After sterilization, flush the solution from the system with clean water until the residual chlorine content is not greater than 0.2 parts per million, unless otherwise directed.

3.7 SERVICE PRESSURE

- A. Provide approved water-pressure reducing valve (PRV) if service pressure exceeds 80 psi to reduce pressure to 80 psi static or less and as required per NCSCB-Plumbing Sect. 604.8.

3.8 DRAINDOWN

- A. Contractor to provide for complete plumbing system drain down.
- 3.9 CLEAN UP
- A. During construction, keep the site clear of debris and upon completion, and before final inspection, clean up the premises to remove all evidence of his work. In addition, upon completion of construction, clean, wash, and/or polish all fixtures, equipment and exposed material and leave them bright and clean.

3.10 GUARANTEES

- A. Guarantee all materials and labor included in the plumbing work for a period of one year from date of final acceptance by the Owner.
- B. Any defects in the system which become evident during the guarantee period shall be corrected without cost to the Owner. This shall include the replacing of defective materials where required, and the repair of damage caused by leaking pipes, etc., and damage to building surfaces caused in making repairs.

GENERAL NOTES – PLUMBING

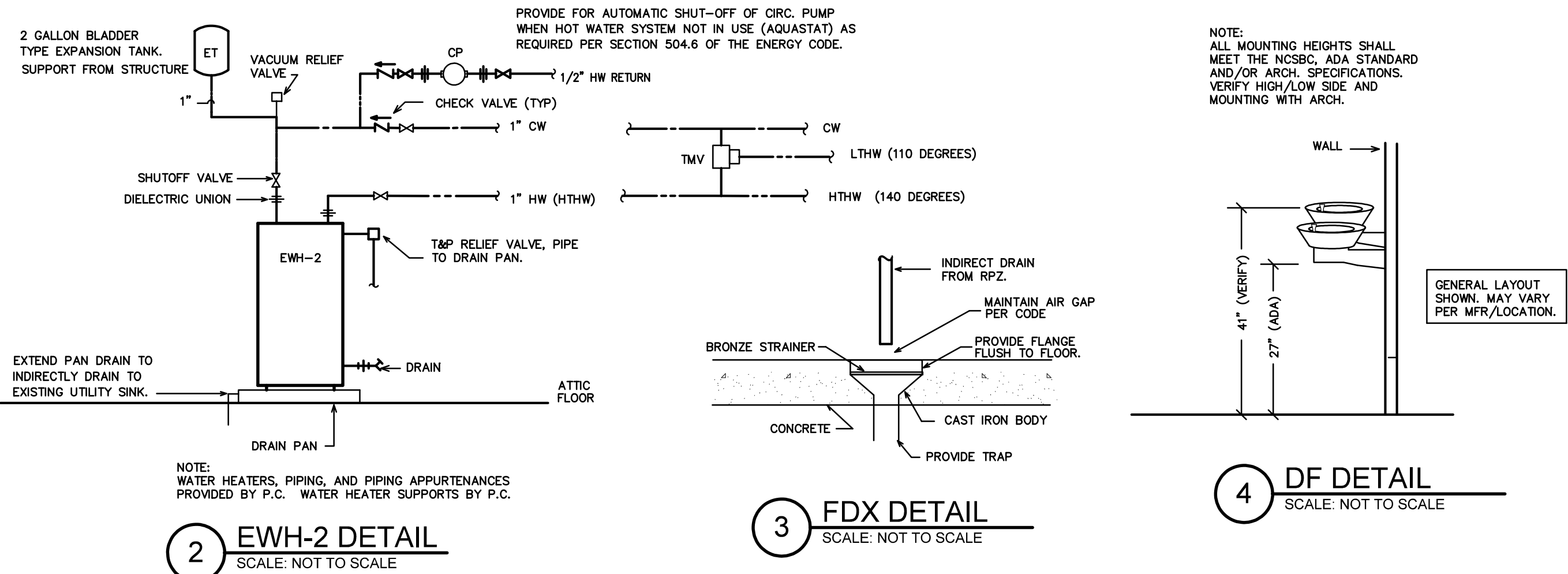
1. PREPLAN ALL WORK PRIOR TO ORDERING, PURCHASING, OR FABRICATING ANY PART OF THE WORK DESCRIBED BY THIS DRAWING.
2. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS WITH EXISTING FIELD CONDITIONS OR THE WORK OF OTHER TRADES.
3. RESOLVE ALL CONFLICTS PRIOR TO INCURRING ANY MATERIAL OR LABOR EXPENSES.
4. COMPLY WITH THE MANUFACTURER'S TECHNICAL INSTRUCTIONS WHEN INSTALLING PLUMBING FIXTURES, MATERIALS, AND DEVICES.
5. LOCATE FIXTURES AND EQUIPMENT GENERALLY AS SHOWN ON THE PLANS; HOWEVER, COORDINATE LOCATIONS WITH ACTUAL FIELD CONDITIONS TO PRESERVE ALL CODE-REQUIRED AND MANUFACTURER - REQUESTED SERVICE CLEARANCES.

SYMBOL LEGEND – PLUMBING

SYMBOL	DESCRIPTION
	WASTE PIPING (W)
	VENT PIPING (V)
	COLD WATER PIPING (CW)
	HOT WATER PIPING (HW)
	HOT WATER RETURN PIPING (HWR)
	HIGH TEMPERATURE HW PIPING (HTHW) 140 DEG. F
	MEDIUM TEMPERATURE HW PIPING (MTHW) 120 DEG. F
	LOW TEMPERATURE HW PIPING (LTHW) 110 DEG. F
	CLEANOUT FINISH FLOOR
	WALL/HORIZONTAL CLEANOUT
	CLEANOUT FINISH GRADE
	DIELECTRIC UNION
	SHUT-OFF VALVE
	CHECK VALVE
	BALANCING VALVE
	CIRCULATION PUMP (CP)
	WATER METER (MTR)
	VENT THRU ROOF (VTR)
	POINT OF NEW CONNECTION TO EXISTING
	FREEZE PROOF, HOSE BIBB (FPHB/HB)
	THERMOMETER/TEMPERATURE GAUGE (T)

LOAD SUMMARY– PLUMBING

WASTE DEMAND (FU)	WATER DEMAND (FU)	WATER DEMAND (GPM)
126.0	210.0	92.4
A 2" CW SERVICE AND METER ARE EXISTING.		



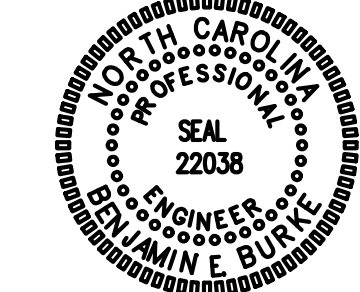
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Corp. License # C-2652



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Ben Burke
C03761F80F34D5...
11/18/2016

STATE ID# 16-16107-01A
WBS ELEMENT 51213.022

PROJECT TITLE
CASWELL COUNTY
REST AREA

US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

DRAWING TITLE
PLUMBING
SPECIFICATIONS

P1

PLOT DATE 11/3/16

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DEMO KEY NOTES FOR SHEET P2

- 1 WATER CLOSET TO BE REMOVED.
- 2 LAVATORY TO BE REMOVED.
- 3 URINAL TO BE REMOVED.
- 4 ELECTRIC WATER COOLER TO BE REMOVED.
- 5 SERVICE SINK TO REMAIN.
- 6 FLOOR DRAIN TO BE REMOVED.
- 7 WATER CLOSET TO REMAIN. *
- 8 LAVATORY TO REMAIN. *
- 9 ELECTRIC WATER COOLER TO REMAIN. *
- 10 BREAK AREA SINK TO REMAIN. *
- 11 4500 W. 50 GAL. ELECTRIC WATER HEATER ON ATTIC PLATFORM ABOVE TO BE REMOVED. PROVIDE NEW EWH-1 TO MAINTAIN HW TO EXISTING/REMAINING FIXTURES DURING PROJECT CONSTRUCTION. SEE SUPPLY PLAN ON SHEET P4.
- 12 FLOOR DRAIN TO REMAIN. *
- 13 FREEZE PROOF HOSE BIBB TO REMAIN. ALL MAY NOT BE SHOWN. VERIFY LOCATIONS.

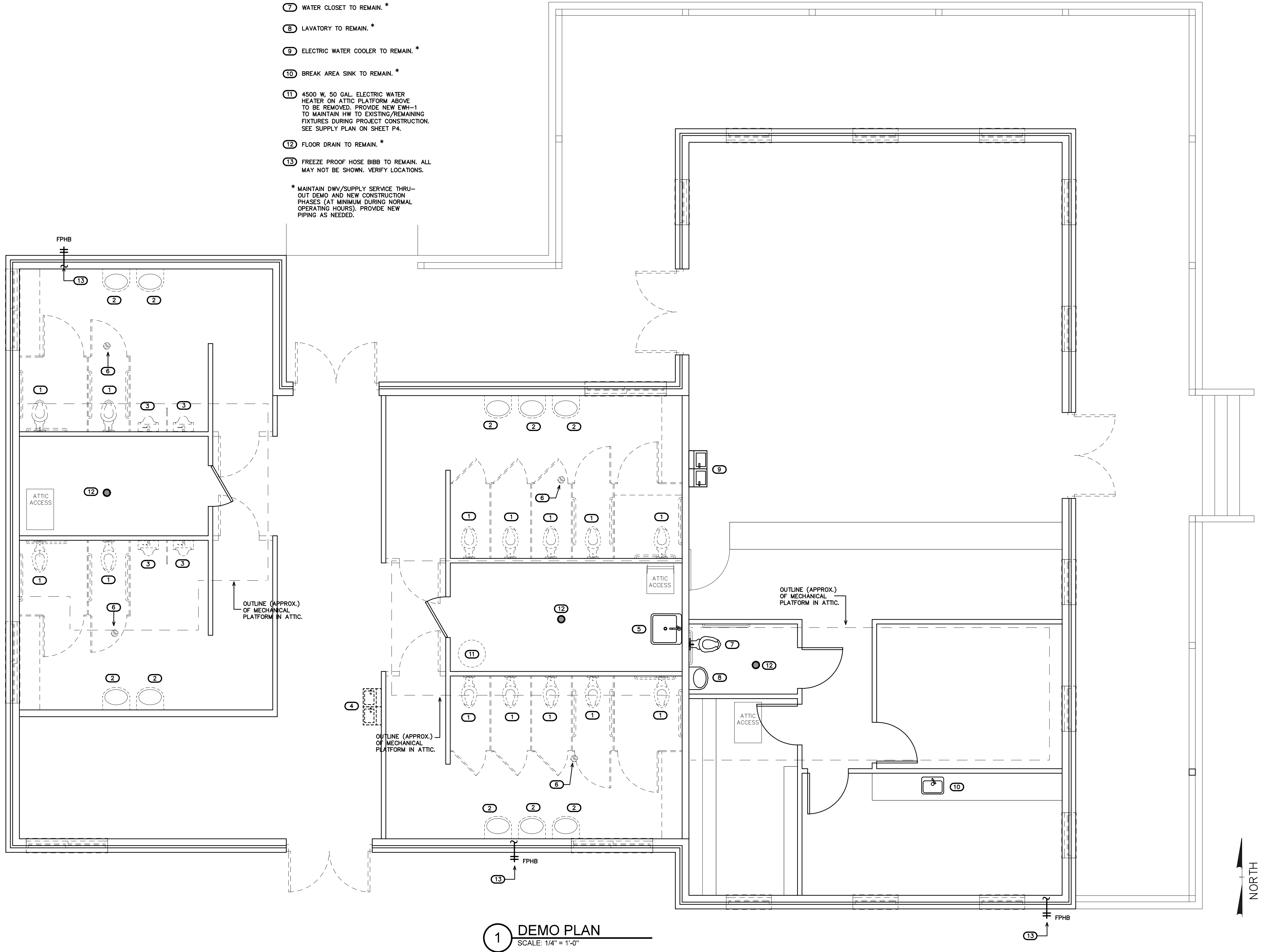
* MAINTAIN DWV/SUPPLY SERVICE THRU-OUT DEMO AND NEW CONSTRUCTION PHASES (AT MINIMUM DURING NORMAL OPERATING HOURS). PROVIDE NEW PIPING AS NEEDED.

NOTE:
THE EXISTING INFORMATION SHOWN ON THIS DRAWING IS FROM FIELD INVESTIGATION AND PREVIOUS PERMIT DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND FIELD VERIFYING ALL RELEVANT INFORMATION. THE SUBMISSION OF A BID INDICATES ACCEPTANCE OF EXISTING CONDITIONS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES NOTED.

THE SCOPE OF DEMOLITION IS AS FOLLOWS--
REMOVE EXISTING FIXTURES IN WORK AREA AS SHOWN. PROVIDE CLEANOUTS ON UNUSED DRAIN LINES AT FINAL FINISHES TO PREVENT DEAD-ENDS PER CODE. REMOVE UNUSED VENT LINES TO ABOVE CEILING AND CAP AT MAIN. REMOVE ALL UNUSED CW & HW LINES/STUB-OUTS, ETC., AND CAP LINES BEHIND FINAL FINISHES. REMOVE AND REPLACE ALL CONCRETE, WALLS AND CEILINGS AS REQUIRED TO LOCATE EXISTING LINES/INSTALL NEW LINES. COORDINATE W/REVISED PLANS FOR LINES TO BE REUSED/REMOVED.

THE PLUMBING CONTRACTOR SHALL TRACE ALL EXISTING DRAIN LINES PRIOR TO THE START OF WORK UTILIZING DYE AND/OR CAMERAS IF NECESSARY. PROVIDE AS-BUILT DRAWINGS FOR ENGINEER REVIEW. VERIFY LOCATION/INVERT REQUIREMENTS OF EXISTING DRAIN LINES PRIOR TO START OF WORK.

COORDINATE WORK WITH BUILDING OWNER SO AS NOT TO IMPACT OPERATION OF ANY ADJACENT SPACES/LEVELS. NIGHT AND WEEKEND WORK MAY BE REQUIRED.



1 DEMO PLAN
SCALE: 1/4" = 1'-0"

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PROJECT TITLE
CASWELL COUNTY
REST AREA

US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
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DRAWING TITLE
DEMO
PLAN

P2

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PROJECT TITLE
CASWELL COUNTY
REST AREA

US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
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DRAWING TITLE
DWV
PLAN

P3

PLOT DATE 11/3/16

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REMOVE AND REPLACE ALL CONCRETE, WALL BOARD AND CEILINGS AS REQUIRED TO LOCATE EXISTING LINES AND INSTALL NEW LINES. ALL EXISTING LINES NOT SHOWN.

THE PLUMBING CONTRACTOR SHALL TRACE ALL EXISTING DRAIN LINES PRIOR TO THE START OF WORK UTILIZING DYE AND/OR CAMERAS IF NECESSARY. PROVIDE AS-BUILT DRAWINGS FOR ENGINEER REVIEW. VERIFY LOCATION/INVERT REQUIREMENTS OF EXISTING DRAIN LINES PRIOR TO START OF WORK.

COORDINATE WORK WITH BUILDING OWNER SO AS NOT TO IMPACT OPERATION OF ANY ADJACENT SPACES/LEVELS. NIGHT AND WEEKEND WORK MAY BE REQUIRED.

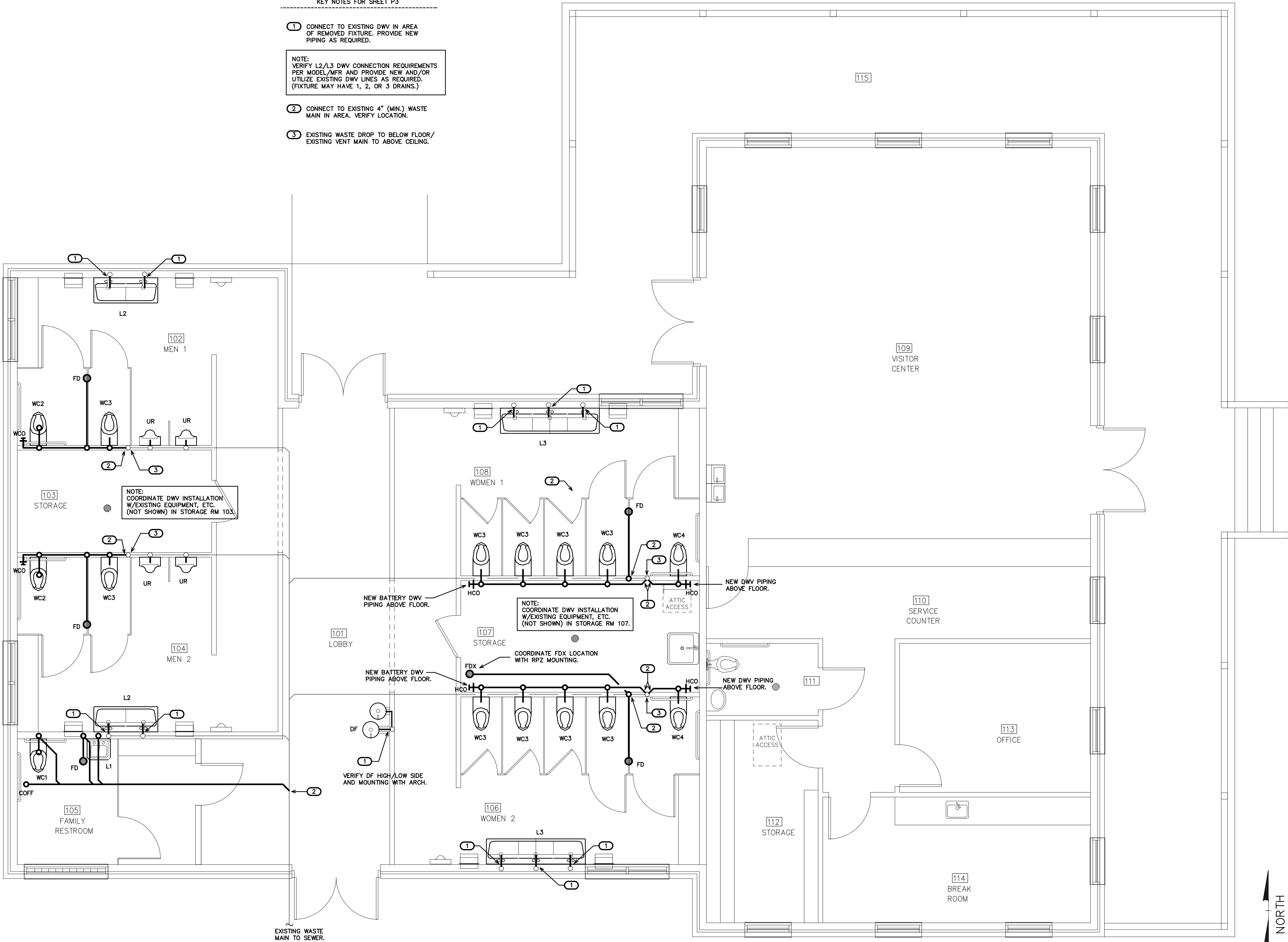
KEY NOTES FOR SHEET P3

1 CONNECT TO EXISTING DWV IN AREA OF REMOVED FIXTURE. PROVIDE NEW PIPING AS REQUIRED.

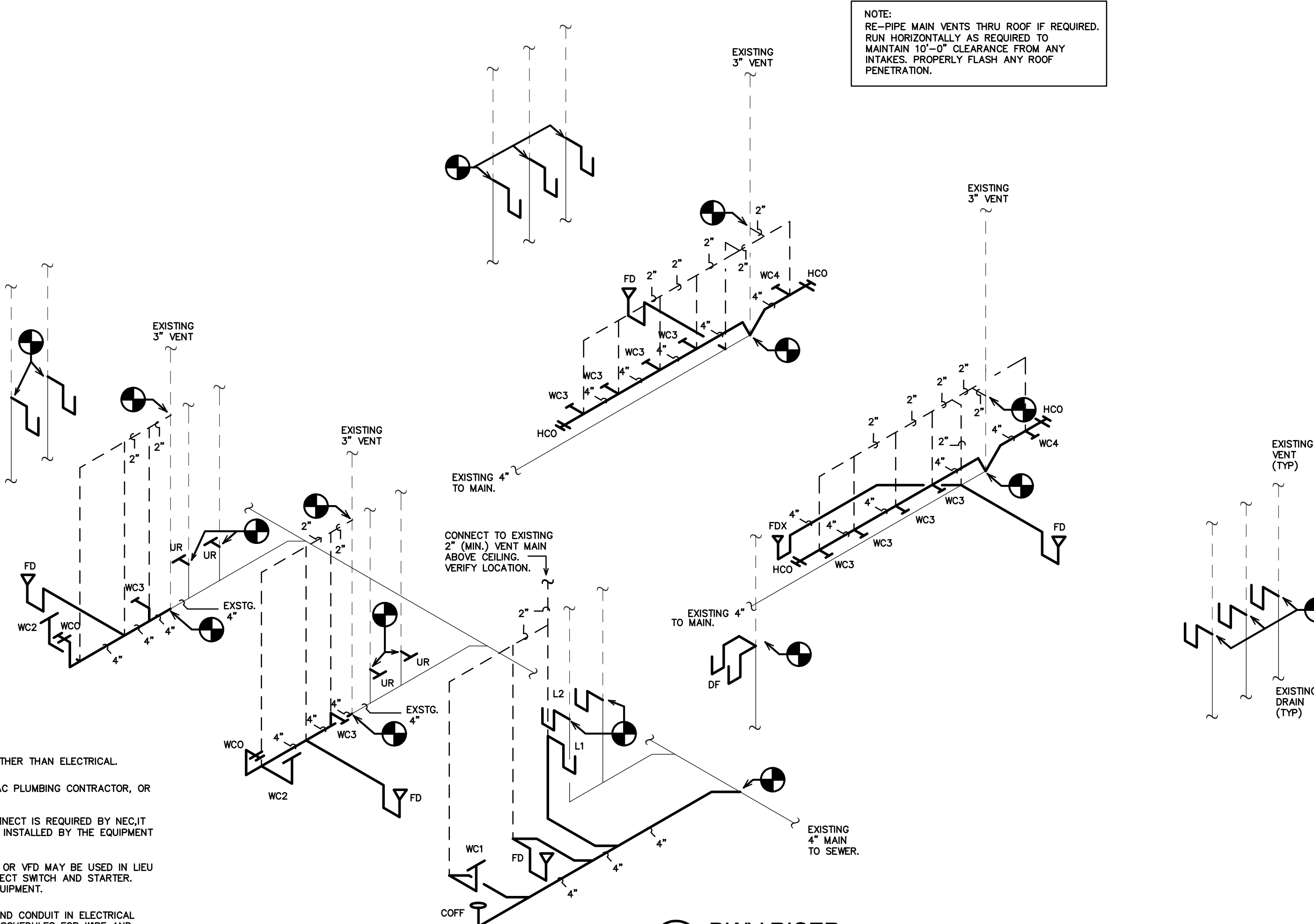
NOTE:
VERIFY L2/L3 DWV CONNECTION REQUIREMENTS PER MODEL A/F/R AND PROVIDE NEW AND/OR UTILIZE EXISTING DWV LINES AS REQUIRED. (FIXTURE MAY HAVE 1, 2, OR 3 DRAINS.)

2 CONNECT TO EXISTING 4" (MIN.) WASTE MAIN IN AREA. VERIFY LOCATION.

3 EXISTING WASTE DROP TO BELOW FLOOR/ EXISTING VENT MAIN TO ABOVE CEILING.



1 DWV PLAN
SCALE: 1/4" = 1'-0"



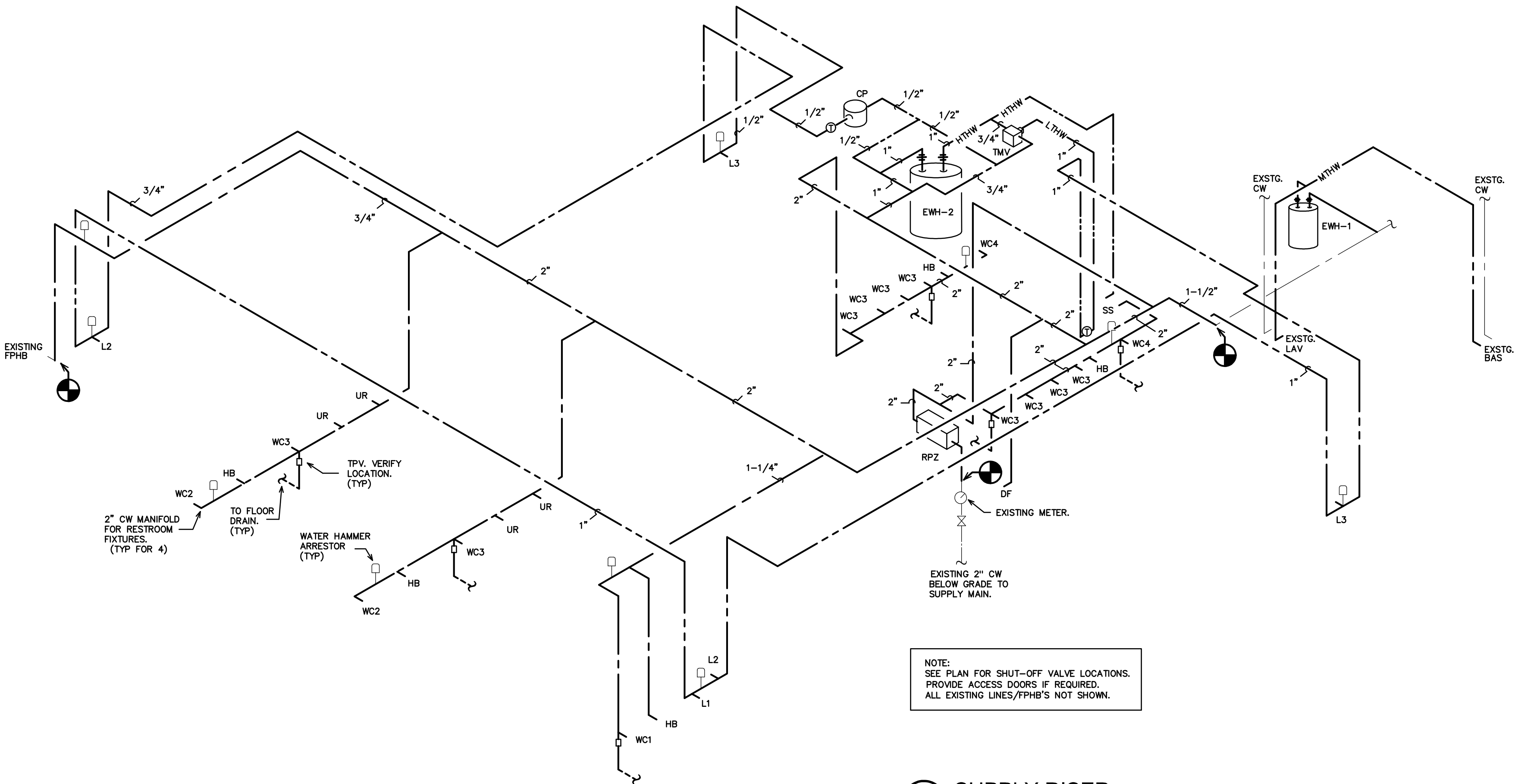
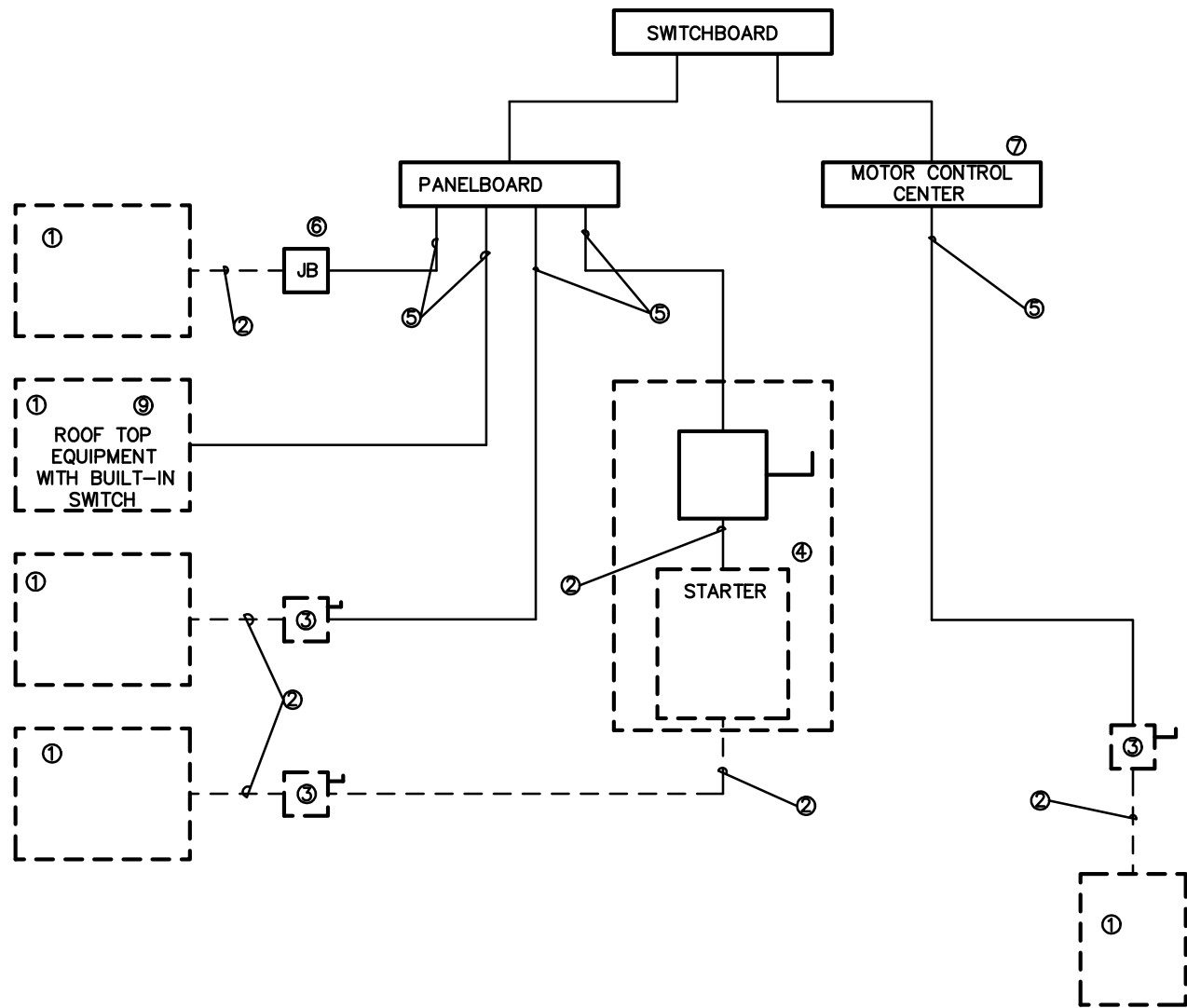
(VERIFY ALL EQUIPMENT REQUIREMENTS PRIOR TO ROUGH-IN)

PIPE SIZING SCHEDULE				
FIXTURE TYPE	DRAIN	VENT	CW	HW
(WC) FLUSH VALVE WATER CLOSET	3"	1 1/2"	1"	—
(L) LAVATORY	1 1/2"	1 1/4"	1/2"	1/2"
(SS) SERVICE SINK	1 1/2"	1 1/4"	1/2"	1/2"
(BAS) BREAK AREA SINK	1 1/2"	1 1/4"	1/2"	1/2"
(UR) URINAL	2"	1 1/2"	3/4"	—
(DF) DRINKING FOUNTAIN	1 1/4"	1 1/4"	1/2"	*
(FPHB) FREEZE PROOF HOSE BIBB	—	—	3/4"	—
(HB) HOSE BIBB	—	—	1/2"	—
(FDX) FLOOR DRAIN W/EXTENSION	4"	2"	—	—
(FD) FLOOR DRAIN	3"	1 1/2"	—	—

* PROVIDE BACKFLOW PREVENTER PER NCSCB--PLUMBING SECT. 608.3, AND ASSE 1024. (WATTS SERIES 7 OR EQUAL) OR ASSE 1022 (WATTS SERIES SD-3 OR EQUAL) IF/WHERE REQUIRED.

DWV/SUPPLY RISER NOTES:
REPRESENTATIVE SIZES ARE GIVEN FOR EACH TYPE OF FIXTURE.
SEE PIPE SIZING SCHEDULE.
MINIMUM 2" DRAIN LINE SIZE UNDER SLAB.
MAINTAIN PIPE SIZES SHOWN UNTIL LARGER SIZE IS REACHED.
PIPE SIZES ARE MINIMUMS FOR INDIVIDUAL FIXTURES U.O.N.

- ELECTRICAL NOTES.**
- EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
 - CONDUIT & WIRING BY HVAC PLUMBING CONTRACTOR, OR OTHER TRADES
 - IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR.
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 - FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES.
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 - IN A SINGLE PRIME CONTRACT, IT IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR TO COORDINATE BETWEEN THE ELECTRICAL AND OTHERS TRADES.



STATE ID# 16-16107-01A
WBS ELEMENT 51213.022

PROJECT TITLE
**CASWELL COUNTY
REST AREA**
US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

DRAWING TITLE
RISERS

P5

PLOT DATE 11/03/16

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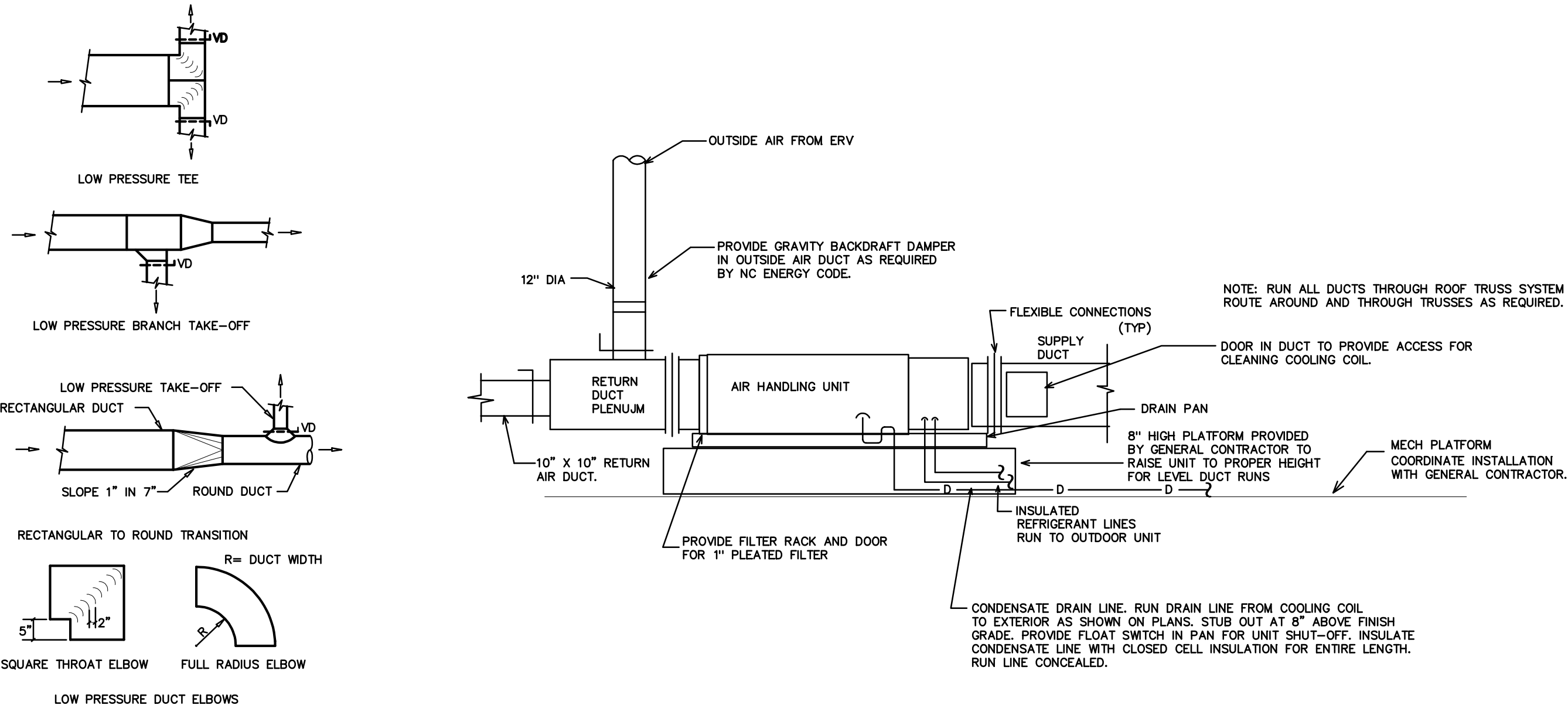


DocuSigned by:
Ben Burke
C393761F8B8F34D5

11/5/2016

2 SUPPLY RISER
SCALE: NOT TO SCALE

3 ELECTRICAL EQUIPMENT CONNECTION
NOT TO SCALE



2 DUCT CONSTRUCTION DETAILS

NOT TO SCALE

1 HORIZONTAL AIR HANDLING UNIT DETAIL

NOT TO SCALE

HVAC EQUIPMENT SCHEDULE	
HVAC SYSTEM #1	
AHU #1 DIRECT EXPANSION FAN COIL UNIT	* CARRIER MODEL #FX4CNF036, 4 WAY, MULTIPOISE FAN COIL UNIT, 8 KW HEATER, NOMINAL CAPACITY = 36,000 BTUH, 1200 CFM NOMINAL, PROVIDE HARD SHUT-OFF TXV VALVE, 3 TON NOMINAL, PROVIDE PROGRAMMABLE THERMOSTAT AND FILTER RACK WITH HINGED DOOR, 1/2HP, 4.1A MOTOR FLA, 32A HEAT FLA, 240V, 1 PH, 44.7A MCA, 50A MOCF AHU & HEAT.
HP #1 OUTDOOR HEAT PUMP UNIT	* CARRIER MODEL #25HBC536A0030, 3 TON OUTDOOR HEAT PUMP UNIT, 15 SEER, PROVIDE CYCLE PROTECTOR, LOW PRESSURE SWITCH, CRANKCASE HEATER, 240 VOLT, 1 PHASE, COMP 16.7A RLA, FAN 1.2A FLA, OUTDOOR HEAT PUMP 22.1A MCA, 35A MOCF.
HVAC SYSTEM #2	
AHU #2 DIRECT EXPANSION FAN COIL UNIT	* CARRIER MODEL #FX4CNF036, 4 WAY, MULTIPOISE FAN COIL UNIT, 8 KW HEATER, NOMINAL CAPACITY = 36,000 BTUH, 1200 CFM NOMINAL, PROVIDE HARD SHUT-OFF TXV VALVE, 3 TON NOMINAL, PROVIDE PROGRAMMABLE THERMOSTAT AND FILTER RACK WITH HINGED DOOR, 1/2HP, 4.1A MOTOR FLA, 32A HEAT FLA, 240V, 1 PH, 44.7A MCA, 50A MOCF AHU & HEAT.
HP #2 OUTDOOR HEAT PUMP UNIT	* CARRIER MODEL #25HBC536A0030, 3 TON OUTDOOR HEAT PUMP UNIT, 15 SEER, PROVIDE CYCLE PROTECTOR, LOW PRESSURE SWITCH, CRANKCASE HEATER, 240 VOLT, 1 PHASE, COMP 16.7A RLA, FAN 1.2A FLA, OUTDOOR HEAT PUMP 22.1A MCA, 35A MOCF.

* OR APPROVED EQUAL

NOTE: 1. AHU HEATER KW RATINGS ARE AT 208 VOLTS.
2. PROVIDE OUTDOOR TSTAT TO PREVENT ELECTRIC HEAT OPERATION WHEN HEAT PUMP CAN MEET THE HEATING LOAD

ENERGY RECOVERY UNIT SCHEDULE																	
									THERMAL PERFORMANCE								
		FANS / MOTORS							DESIGN CONDITIONS				ERV OUTLET CONDITIONS		ENERGY RECOVERY (THERMAL) CAPACITY		
EQUIP. NUMBER	MODEL NO.	FLOW	STATIC PRESSURE (EXTERNAL)	FAN MOTORS (FAN MOTORS)	FLA (FOR UNIT SINGLE POINT)	VOLTS/ PHASE/ HZ	MCA	FUSE/CB MAX	OUTSIDE AIR TEMP(T) & HUMIDITY (DB) / (WB OR RH)		ROOM AIR TEMP (T) & HUMIDITY (DB) / (WB OR RH)		LEAVING AIR TEMP(T) & HUMIDITY (DB) / (WB)		COOLING CAPACITY (MBH / TON)	HEATING CAPACITY (MBH)	NOTES:
									SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER			
ERV-1	MICROMETL FWH11H6900HEF	700 CFM	0.50IN H ₂ O	(2) FOR FANS	14.76 A	208-230V 1 PH 60 HZ	18.45	25	93F / 74F	16F / 8	75F / 50%	72F / 50%	80.3F / 70.8F	57.5F / 45	9.6 / 0.8	21.5	ALL
ERV-2	MICROMETL FWH11H6900HEF	700 CFM	0.50IN H ₂ O	(2) FOR FANS	14.76 A	208-230V 1 PH 60 HZ	18.45	25	93F / 74F	16F / 8	75F / 50%	72F / 50%	80.3F / 70.8F	57.5F / 45	9.6 / 0.8	21.5	ALL

NOTES: _____

- FLOW & LOADS BASED ON ARI-1060 PERFORMANCE & CERTIFIED CORE.
- NOT USED.
- VENTILATION TYPE: STATIC PLATE, HEAT & HUMIDITY TRANSFER.
- INCLUDE INTEGRAL DISPOSABLE FILTERS (OUTSIDE AND ROOM AIR) WITH MERV8 OR BETTER RATING.
- INCLUDE SINGLE POINT ELECTRICAL POWER CONNECTION.
- HOUSING SHALL BE GALVANIZED, 20 GAUGE (OR THICKER) STEEL WITH LAPPED CORNERS.
- OR EQUALS BY SEMCO, OR THYBAR.
- SERVICE ACCESS DOORS SHALL BE GASKETED & PROVIDE ACCESS FOR MAINTENANCE OF ALL COMPONENTS.
- INCLUDE INSULATION ON ALL CASE WALLS & DOORS.
- INCLUDE THERMALLY PROTECTED MOTORS WITH STARTERS.
- UL LISTED 1995
- PROVIDE WITH FUSED DISCONNECT SWITCH.

GENERAL NOTES – MECHANICAL

- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE AND ALL LOCAL AND OTHER APPLICABLE CODES.
- ANY PERMITS AND INSPECTION FEES SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR (MC).
- ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN. THE MC SHALL COORDINATE ALL OF HIS WORK WITH THE GENERAL CONTRACTOR (GC) AND OTHER TRADES.
- THE LOCATION OF ALL DUCT, PIPING AND EQUIPMENT SHALL BE ADJUSTED TO ACCOMMODATE ANTICIPATED OR ENCOUNTERED INTERFERENCES.
- THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. FOR DIMENSIONS REFER TO THE ARCHITECTURAL PLANS.
- THE MC SHALL BE RESPONSIBLE FOR ALL ELECTRICAL STARTERS INTERLOCKS, CONTROL WIRING CONDUIT AND POWER WIRING FROM DISCONNECTS TO HIS EQUIPMENT, USING A LICENSED ELECTRICIAN.
- THE MC SHALL USE FIRE DAMPERS FOR PROTECTION OF THE OPENING IN ACCORDANCE WITH STATE AND LOCAL CODES IN ALL LOCATIONS WHERE PENETRATIONS OF RATED WALLS AND FLOORS OCCUR. SEE ARCHITECTURAL PLANS FOR RATED WALL AND FLOOR LOCATIONS. PROVIDE ACCESS DOORS AT ALL DAMPER LOCATIONS. LOCATE DOORS FOR EASY ACCESS. THERE ARE NO RATED WALLS PENETRATED IN THIS HVAC UPFIT.
- INSTALL FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCTWORK AHU. ALL MECHANICAL EQUIPMENT SHALL OPERATE FREE OF OBJECTIONAL NOISE AND VIBRATION.
- INSTALL TURNING VANES IN SUPPLY DUCTS AT ALL ELBOWS AND SPLITTER DAMPERS. PROVIDE BALANCING DAMPERS IN ALL DUCTS WHERE SHOWN OR REQUIRED FOR SYSTEM BALANCING. PROVIDE SPIN IN STARTING COLLARS WITH DAMPERS AT ALL SUPPLY TAKEOFFS.
- DUCT DIMENSIONS ARE SHOWN INSIDE CLEAR. COORDINATE EXACT SIZE WITH SPACE AVAILABLE. DUCT INSULATION SHALL BE 2" FIBERGLASS EXTERIOR DUCT INSULATION WITH FOIL FACING.
- THERMOSTAT, WIRING AND CONDUIT ARE TO BE FURNISHED BY THE MC. MOUNT THERMOSTAT 48" ABOVE THE FINISHED FLOOR. COORDINATE LOCATION WITH OWNER. PROVIDE AUTO CHANGEOVER THERMOSTAT WITH UNIT OFF POSITION AS MINIMUM. PROVIDE AN EMERGENCY SHUT-OFF SWITCH ABOVE THE THERMOSTAT. PROPERLY LABEL SHUT-OFF SWITCH.
- THE MC SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM HIS WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT THE COMPLETION OF HIS WORK. HE SHALL ALSO LEAVE CLEAN ALL EXPOSED EQUIPMENT IN HIS CONTRACT.
- COORDINATE DIFFUSER AND CEILING EXHAUST GRILLE LOCATIONS WITH LIGHTS AND GRID. COORDINATE MOUNTING FRAME WITH CEILING TYPE.
- THE M.C. SHALL COORDINATE WITH AND PROVIDE EQUIPMENT SPEC. SHEETS TO THE GENERAL AND ELECTRICAL CONTRACTORS FOR REVIEW PRIOR TO ORDERING EQUIPMENT.
- PROPERLY SUPPORT FLEXIBLE DUCT, MINIMUM 75% DEFORMATION. PROVIDE SHEET METAL ELBOWS AT ALL 90 DEGREE BENDS.
- ALL DUCT JOINTS SHALL BE SEALED AIRTIGHT WITH FIBER ENPREGNATED MASTIC OR HARDCAST AND TAPE.
- SUPPORT AHU, EXHAUST FANS, HEAT WHEEL AND ALL DUCTWORK, ETC. FROM STRUCTURE. PIPE STRAPPING WILL NOT BE ALLOWED.

LEGEND – MECHANICAL

12 X 8	RECTANGULAR GALVANIZED STEEL DUCTWORK
12" DIA.	RIGID ROUND GALVANIZED STEEL DUCTWORK
	FLEXIBLE DUCT
☒	SUPPLY DIFFUSER
☑	RETURN GRILLE
⊙	THERMOSTAT WITH LOCKING, VANDAL PROOF COVER
⊙S	REMOTE DUCT MOUNTED TEMPERATURE SENSOR
—	MANUAL BALANCING DAMPER
⊙X	GRILLE TYPE
XXX	MIN. CFM

OUTDOOR AIR CALCULATIONS	
OUTDOOR VENTILATION AIR PROVIDED PER TABLE 403.3, 2012 NORTH CAROLINA STATE BUILDING CODE: MECHANICAL CODE.	
APPLICATION	CFM/FLUSHING FIXTURE
TOILET ROOMS	70 CFM EACH
17 FLUSHING FIXTURES X 70 CFM = 1190 CFM 1400 CFM EXHAUST PROVIDED BY (2) ERVS	
APPLICATION	CFM/SQ.FT.
CORRIDORS/UTILITIES	0.06 CFM/SQ.FT.
1071 SQ. FT. X 0.06 CFM/SQ.FT. = 64 CFM	
TOTAL OUTSIDE AIR REQUIRED ~ 1254 CFM TOTAL OUTSIDE PROVIDED ~ 1400 CFM AHU-1 / ERV-1 = 700 CFM PROVIDED AHU-2 / ERV-2 = 700 CFM PROVIDED	

MECHANICAL SYSTEMS AND EQUIPMENT

METHOD OF COMPLIANCE:

Prescriptive ☒ Energy Cost Budget ☐

Thermal Zone	4A
Exterior Design Conditions	
winter dry bulb	16 F
summer dry bulb	93 F
Interior Design Conditions	
winter dry bulb	72 F
summer dry bulb	75 F
relative humidity	50%
Building Heating Load	91,600 BTU/hr -43,120 BTU/hr (heat wheel reduction) 48,480 BTU/hr
Building Cooling Load	62,700 BTU/hr -19,600 BTU/hr (heat wheel reduction) 43,100 BTU/hr

Mechanical Spacing Conditioning System

Unitary – The building is served by (2) two 3 ton split system heat pump units with with (2) two energy recovery ventilators.

Boiler – Not applicable to this project.
Chiller – Not applicable to this project.

Equipment efficiencies

Efficiencies and outputs are listed on equipment schedules – See drawings.

Equipment schedules with motors.

Motors used on this project are included in the efficiency rating of the unit. See drawings for efficiencies.

DESIGNER STATEMENT:

To the best of my knowledge and belief, the design of this building complies with the mechanical system and equipment requirements of the 2012 North Carolina State Building Code: Energy Conservation Code.

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11/5/2016

STATE ID# 16-16107-01A
WBS ELEMENT 51213.022

PROJECT TITLE
**CASWELL COUNTY
REST AREA**

US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

DRAWING TITLE
**HVAC
SCHEDULES/DETAILS**

M1

PLOT DATE 11/03/16

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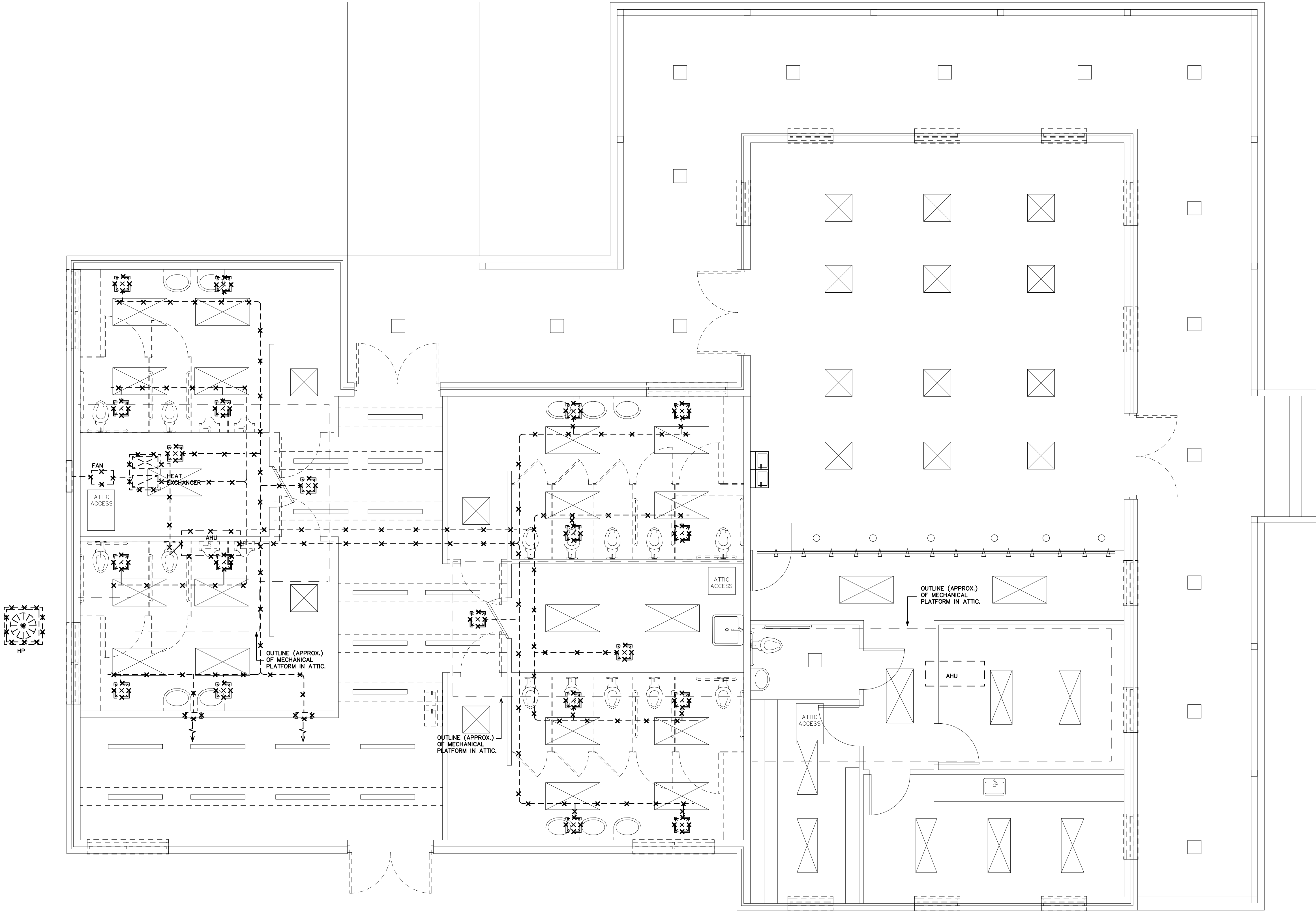
PROJECT NO.
1504b

DRAWING TITLE
EXISTING HVAC
PLAN

M2

PLOT DATE 11/03/16

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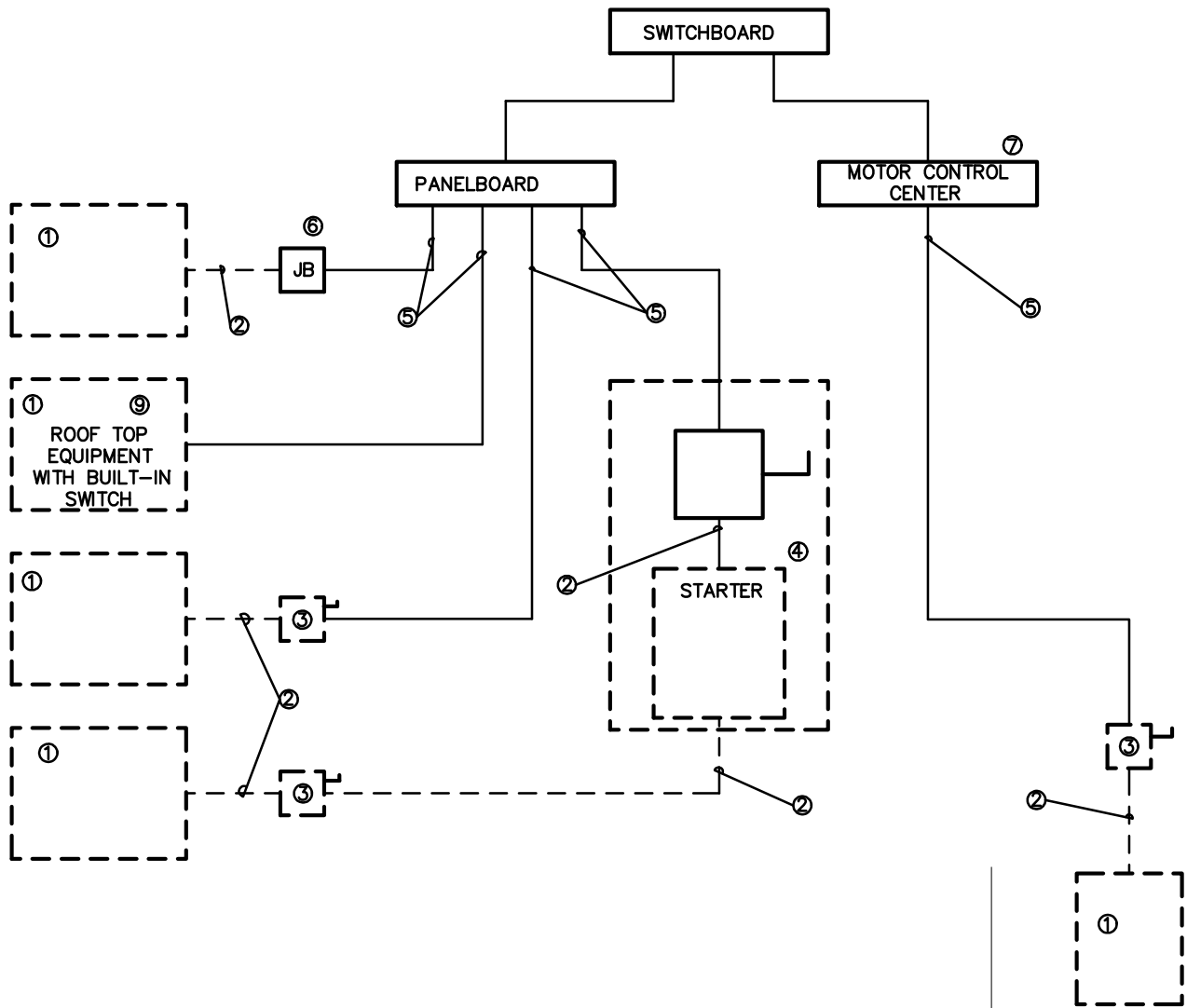
DEMOLITION SCOPE - REST AREA SIDE ONLY:

REMOVE EXISTING HEAT PUMP SYSTEM INCLUDING AIR HANDLING UNIT AND OUTDOOR HEAT PUMP UNIT. REMOVE EXISTING EXHAUST FAN AND HEAT EXCHANGER. REMOVE ALL EXISTING SUPPLY, RETURN, AND EXHAUST DUCTWORK COMPLETELY. REMOVE ALL SUPPLY, RETURN, AND EXHAUST AIR DISTRIBUTION DEVICES.

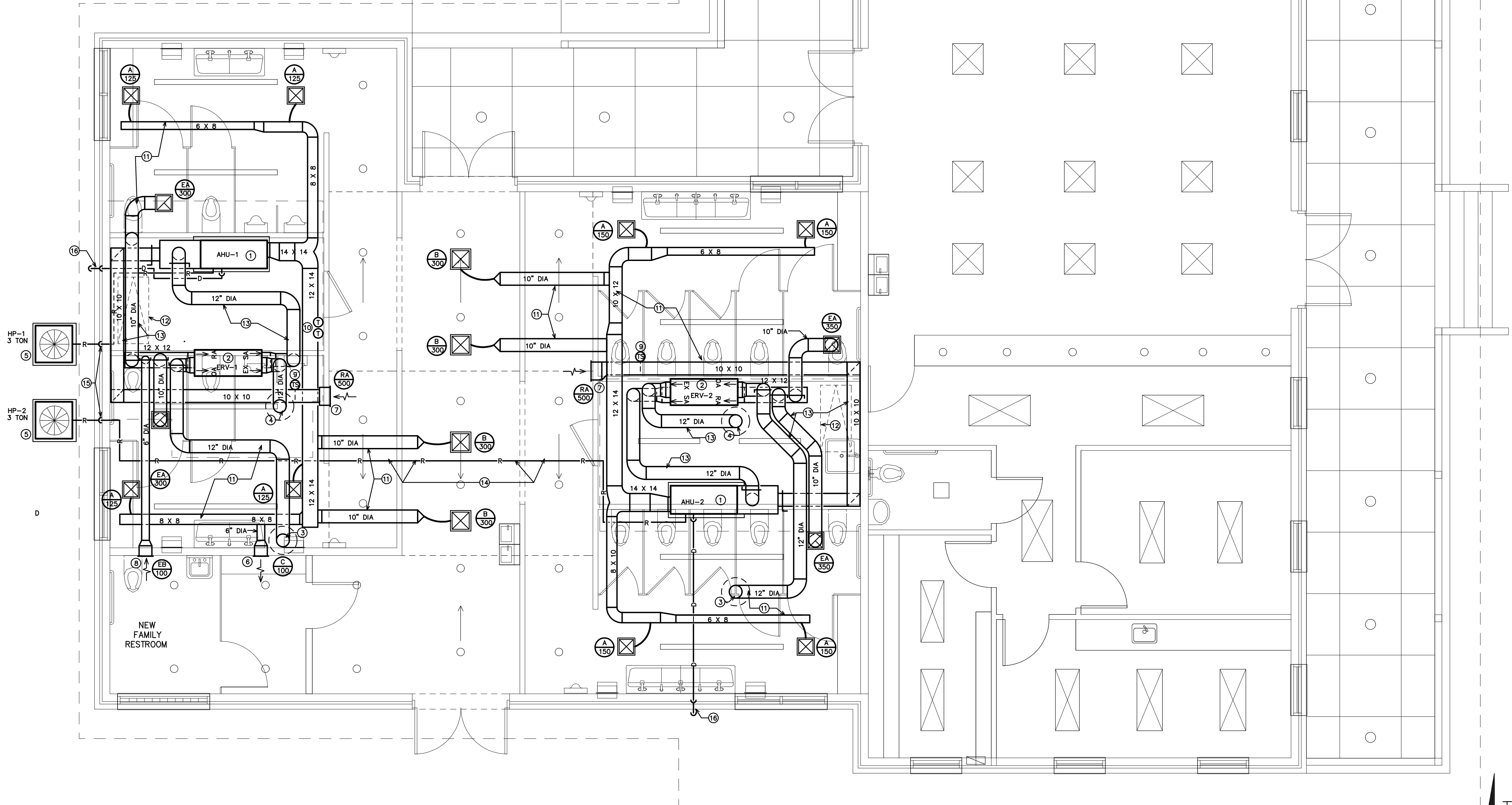
1 EXISTING/DEMO HVAC PLAN
SCALE: 1/4" = 1'-0"

KEY NOTES FOR ELECTRICAL CONNECTION DRAWING 2/M3

- EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
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2 ELECTRICAL EQUIPMENT CONNECTION
NOT TO SCALE



1 REVISED HVAC PLAN
SCALE: 1/4" = 1'-0"

KEY NOTES FOR HVAC DRAWING 1/M3

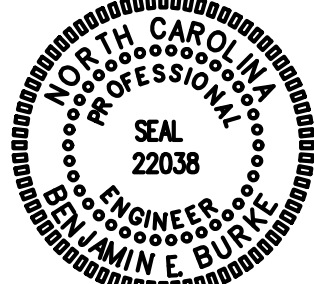
- AIR HANDLING UNIT ON MECHANICAL PLATFORM IN ATTIC.
- ERV ON MECHANICAL PLATFORM IN ATTIC.
- 12" DIA. OUTSIDE AIR DUCT UP TO ROOF MOUNTED OUTSIDE AIR INTAKE HOOD. INTAKE SHALL BE 10'-0" MIN. FROM ANY EXHAUST DISCHARGE. INTAKE HOOD SHALL BE EQUAL TO CARNES MODEL GSAA, SIZE 12".
- 12" DIA. EXHAUST DUCT UP TO ROOF MOUNTED EXHAUST HOOD. DISCHARGE SHALL BE 10'-0" MIN. FROM ANY OUTSIDE AIR INTAKE. EXHAUST HOOD SHALL BE EQUAL TO CARNES MODEL GSAA, SIZE 12".
- OUTDOOR HEAT PUMP UNIT MOUNTED ON 4" THICK CONCRETE PAD.
- HIGH SIDEWALL MOUNTED SUPPLY AIR DIFFUSER.
- HIGH SIDEWALL MOUNTED RETURN AIR GRILLE.
- HIGH SIDEWALL MOUNTED EXHAUST GRILLE.
- REMOTE DUCT MOUNTED TEMPERATURE SENSOR..
- WALL MOUNTED THERMOSTATS. MOUNT AT 48" AFF.
- RUN DUCTWORK CONCEALED IN ATTIC SPACE. (TYPICAL).
- ATTIC ACCESS PANEL BY GENERAL CONTRACTOR.
- RUN DUCTWORK AS HIGH AS POSSIBLE OVER ATTIC MECHANICAL PLATFORM TO PROVIDE CLEARANCE FOR ATTIC ACCESS PANEL AND MAINTENANCE PERSONNEL.
- RUN PIPING CONCEALED IN ABOVE CEILING.
- RUN REFRIGERANT PIPING DOWN CONCEALED IN EXTERIOR WALL.
- RUN CONDENSATE PIPING DOWN CONCEALED IN EXTERIOR WALL. STUB OUT AT 8" ABOVE FINISH GRADE AND TERMINATE WITH ELBOW TURNED DOWN IN PLANTED AREA.

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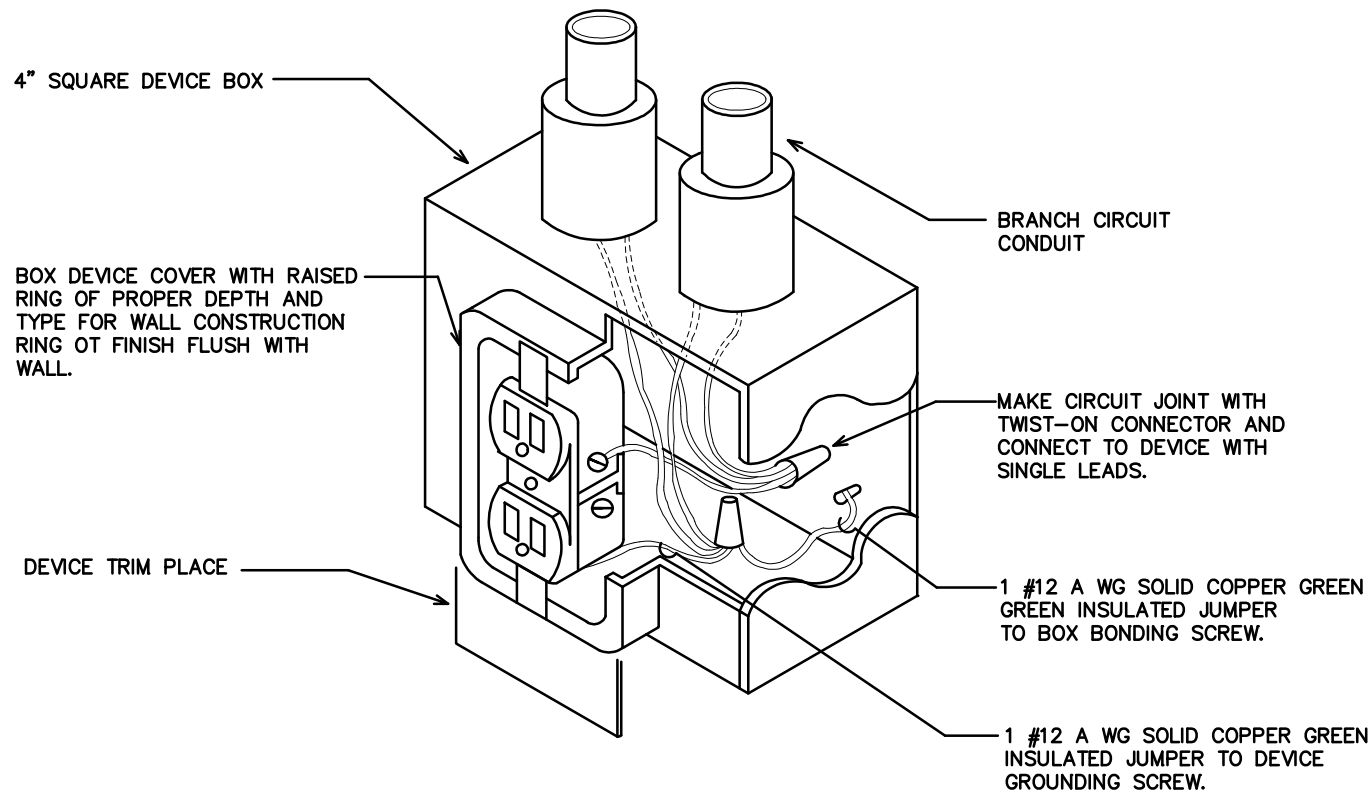
PROJECT NO.
1504b

DRAWING TITLE
REVISED HVAC
PLAN

M3

PLOT DATE 11/03/16

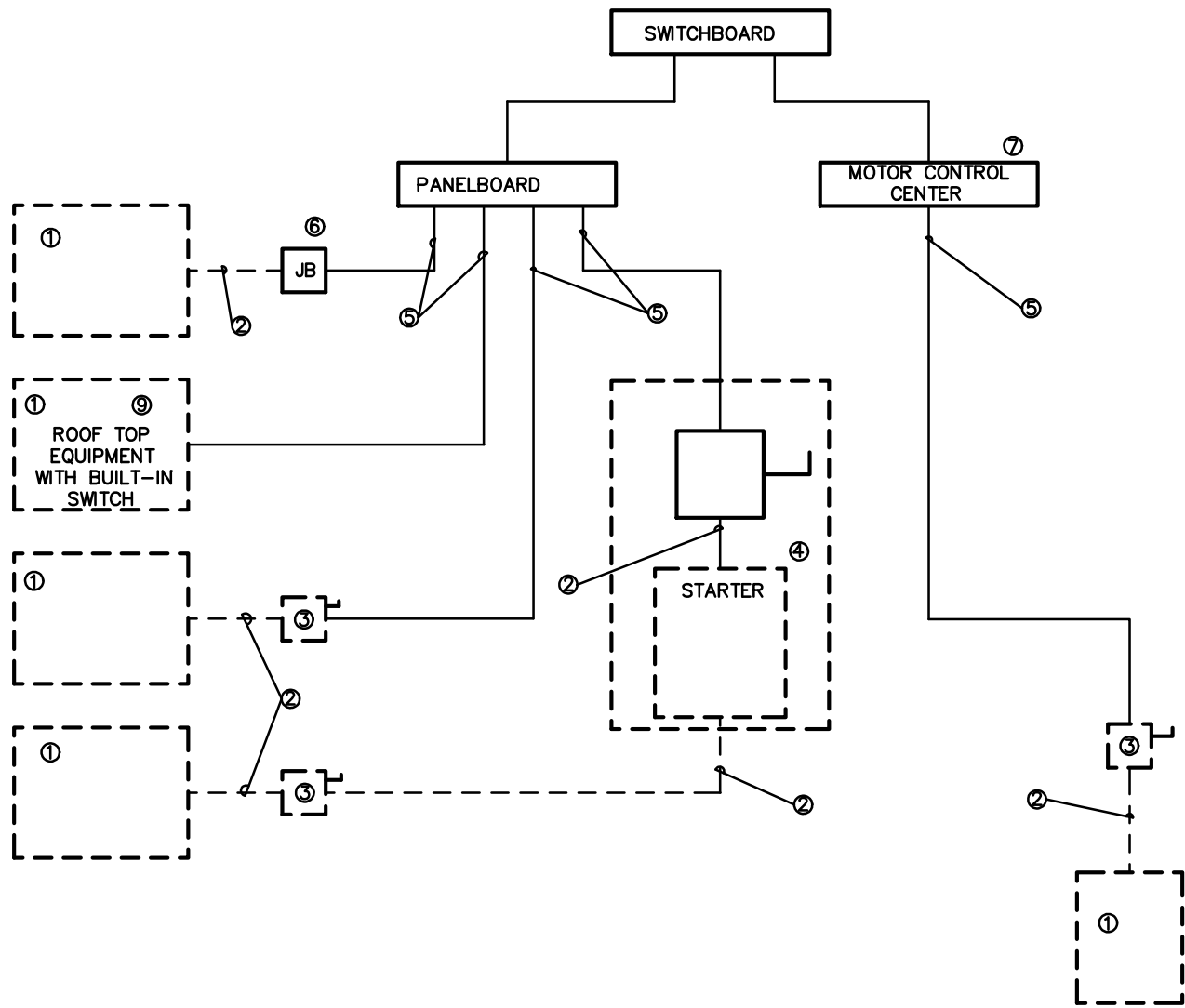
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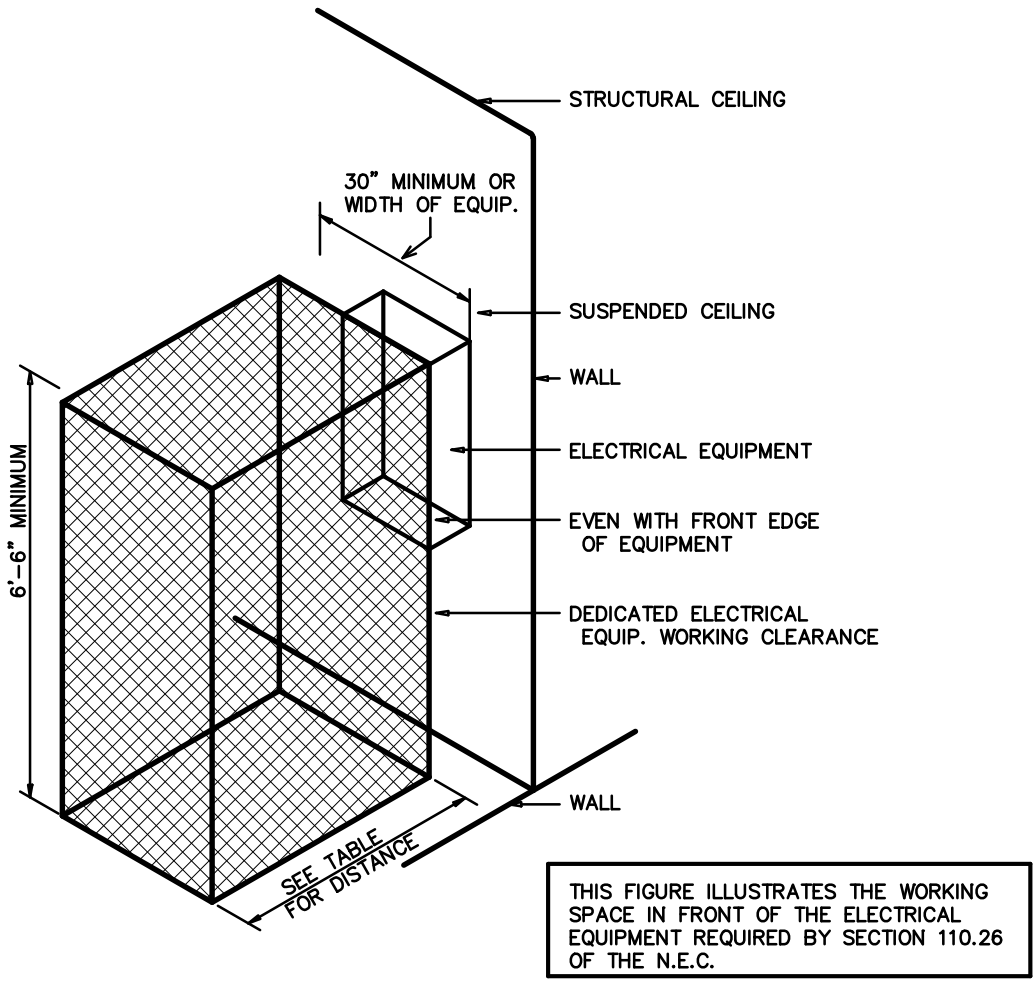
1 RECEPTACLE GROUNDING DETAIL
NOT TO SCALE

ELECTRICAL NOTES

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2 ELECTRICAL EQUIPMENT CONNECTION
NOT TO SCALE



ELECTRICAL EQUIPMENT WORKING CLEARANCE
PER ARTICLE 110.26 OF N.E.C.

VOLTAGE TO GROUND NOMINAL	WORKING CLEARANCES			
	MIN. CLEAR DISTANCE IN FEET			
0-150	CONDITION: 1	2	3	
	3	3	3	
151-600	3	3-1/2	4	

WHERE THE CONDITIONS ARE AS FOLLOWS:

- EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE THAT ARE EFFECTIVELY GUARDED BY INSULATING MATERIALS.
- EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE. CONCRETE, BRICK OR TILE WALLS SHALL BE CONSIDERED AS GROUNDED.
- EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE.

3 ELECTRICAL CLEARANCES
NOT TO SCALE

ELECTRICAL LEGEND



LINEAR FLUORESCENT LIGHT FIXTURE: LETTER DENOTES TYPE OF LIGHT FIXTURE (REFER TO LIGHTING PLAN AND FIXTURE SCHEDULE).



CABINET EXHAUST FAN



WP/GFI

DUPLEX RECEPTACLE - 120V, MOUNT 18" TO CENTER AFF UNLESS NOTED OTHERWISE; 'WP' INDICATES WEATHER PROOF, 'GFI' INDICATES GROUND FAULT CURRENT INTERRUPT PROTECTED. 'L' INDICATES LOCKING COVER, PROVIDE KEY.



QUADRAPLEX RECEPTACLE - 120V



LIGHT SWITCH



LIGHT SWITCH WITH INTEGRAL INFRARED MOTION SENSOR FOR AUTOMATIC SHUT-OFF WITH UP TO 2 HOUR ADJUSTABLE DELAY.



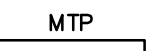
MOTOR RATED SWITCH



JUNCTION BOX



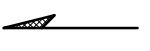
TELE/DATA OUTLET - PROVIDE JUNCTION BOX AND CONDUIT WITH PULL STRING ABOVE CEILING. PROVIDE WIRING BACK TO SERVICE ENTRY.



MAIN TELEPHONE PANEL- PROVIDE 2'X2' FIRE RESISTANT BACKBOARD. PROVIDE (2) 2" CONDUITS TO TELEPHONE SERVICE RIGHT-OF-WAY. SEE SITE PLAN FOR LOCATION.



TIME CLOCK



SINGLE-POLE HOMERUN TO PANELBOARD



TWO-POLE OR 3-POLE HOMERUN TO PANELBOARD



EMERGENCY LIGHT



EXIT LIGHT



COMBINATION EXIT/EMERGENCY LIGHT



BRANCH CIRCUIT WIRING



SWITCH LEG



GROUND CONNECTION



DISTRIBUTION PANELBOARD



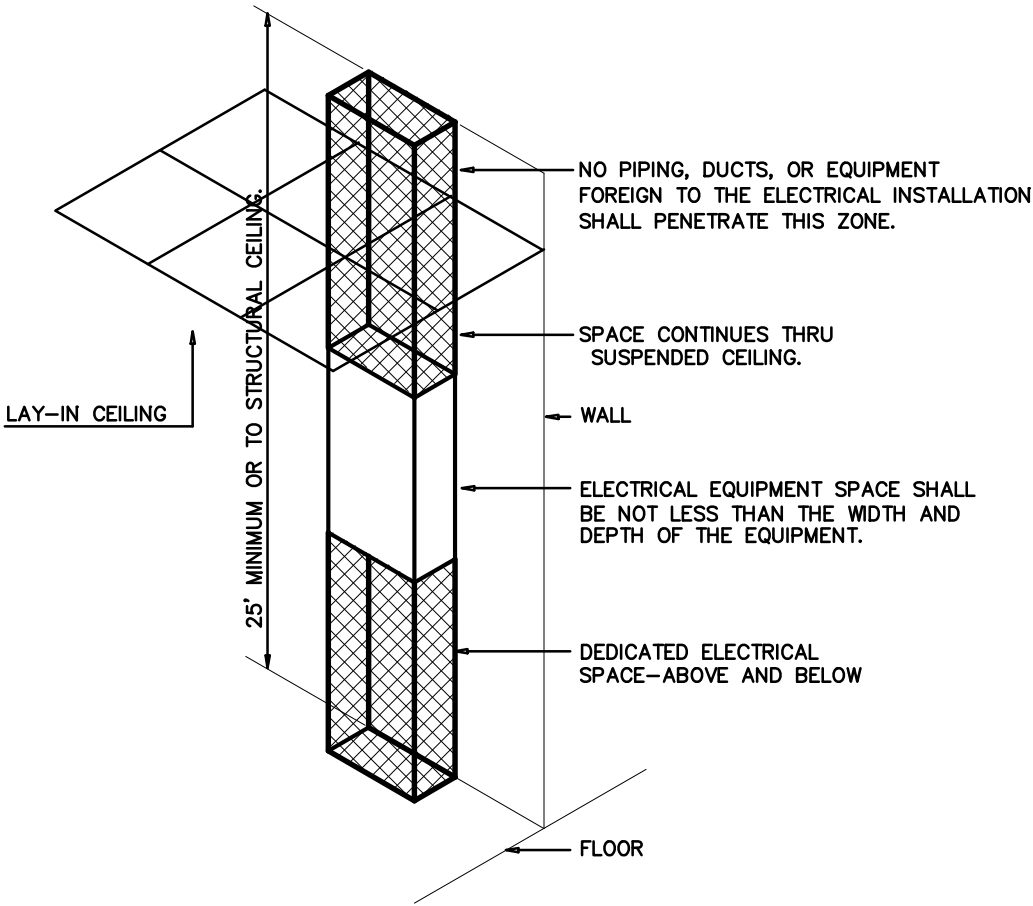
DISCONNECTING MEANS AS REQUIRED BY CODE



EXTERIOR PHOTOCCELL



ADA DOOR OPERATOR BUTTON



ELECTRICAL EQUIPMENT DEDICATED SPACE
PER ARTICLE 110.26.F.1 OF N.E.C.

4 DEDICATED SPACE
NOT TO SCALE

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11/5/2016

STATE ID# 16-16107-01A
WBS ELEMENT 51213.022

PROJECT TITLE
CASWELL COUNTY
REST AREA

US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

DRAWING TITLE
ELECTRICAL
LEGEND/DETAILS

E1

PLOT DATE 9/16/16

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PROJECT TITLE
CASWELL COUNTY
REST AREA
US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

DRAWING TITLE
EXISTING LIGHTING
PLAN

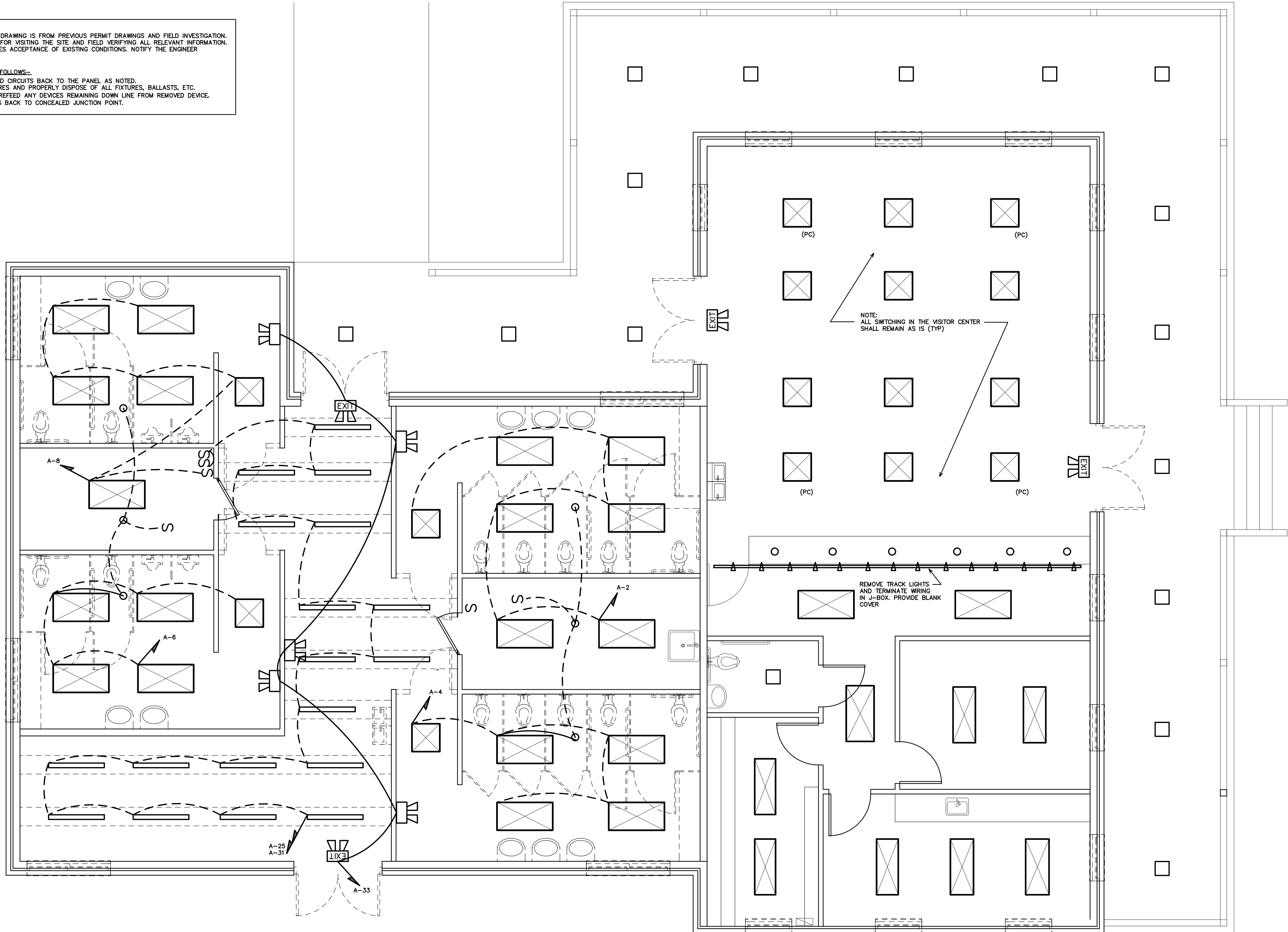
E2

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THE SCOPE OF DEMOLITION IS AS FOLLOWS--
REMOVE ALL EXISTING LIGHTING AND CIRCUITS BACK TO THE PANEL AS NOTED.
REMOVE ALL DEMOTED LIGHT FIXTURES AND PROPERLY DISPOSE OF ALL FIXTURES, BALLASTS, ETC.
REMOVE ALL DEVICES AS SHOWN. REFEED ANY DEVICES REMAINING DOWN LINE FROM REMOVED DEVICE.
REMOVE ALL WIRING AND CONDUITS BACK TO CONCEALED JUNCTION POINT.



1 EXISTING LIGHTING PLAN
SCALE: 1/4" = 1'-0"

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* OR APPROVED EQUAL BY LITHONIA/DAYBRITE. PROVIDE CUT SHEETS FOR OWNER APPROVAL PRIOR TO ORDERING FIXTURES. FOR FLUORESCENT FIXTURES CONTROLLED BY MOTION SENSOR, PROVIDE "PROGRAMMED RAPID START" BALLASTS. CATALOG NUMBERS ARE FOR REFERENCE ONLY, ACTUAL NUMBERS MAY VARY.
'EB' DENOTES ELECTRONIC BALLAST.

**** VERIFY FIXTURE HAS INTEGRAL LOCAL DISCONNECTING MEANS PER NEC 410.130 (G) (2011).**

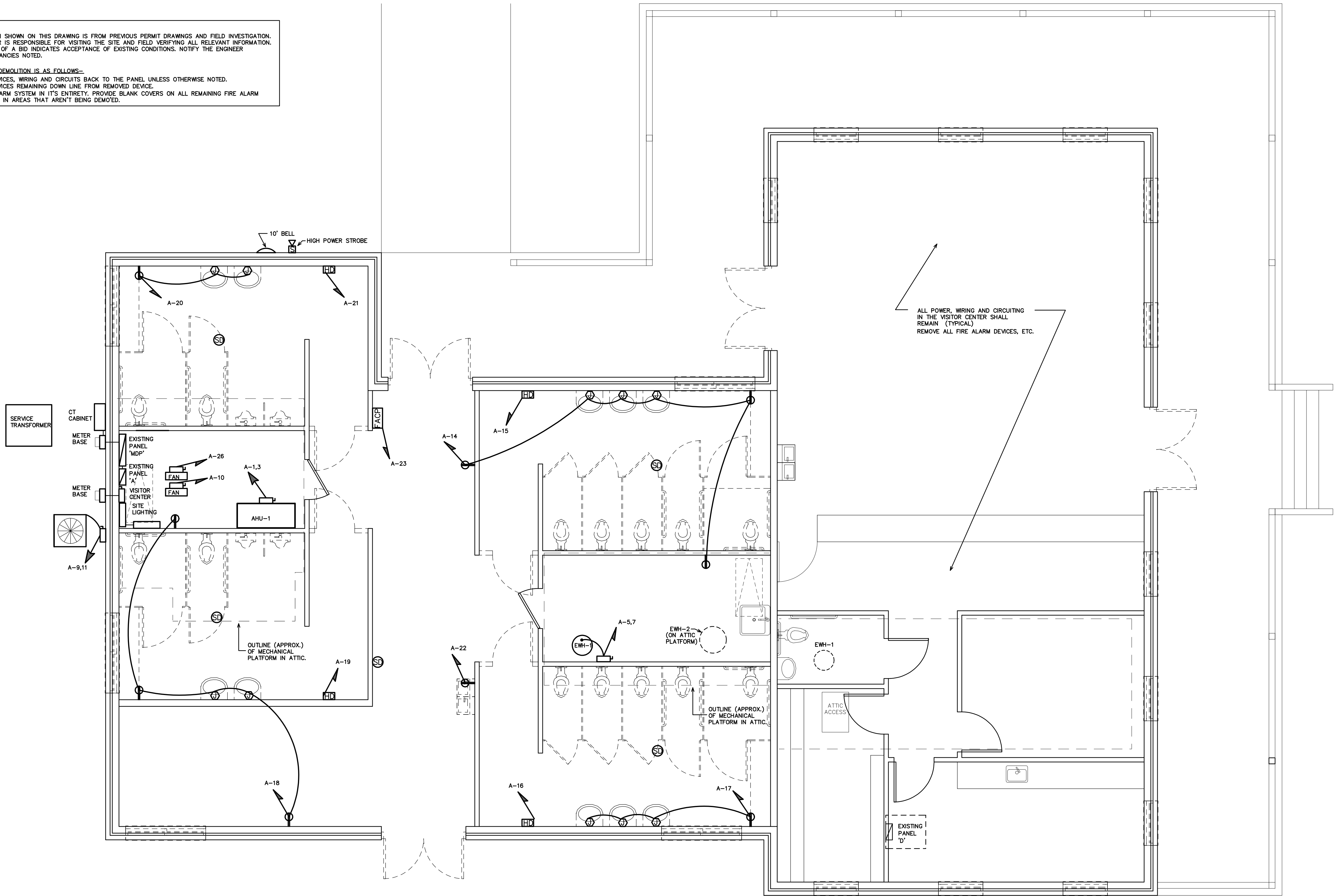
THE EMERGENCY LIGHTS AND EXIT SIGNS MUST HAVE INTEGRAL BATTERIES, CHARGERS AND TEST SWITCHES.



NORTH

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THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND FIELD VERIFYING ALL RELEVANT INFORMATION.
THE SUBMISSION OF A BID INDICATES ACCEPTANCE OF EXISTING CONDITIONS. NOTIFY THE ENGINEER
OF ANY DISCREPANCIES NOTED.

THE SCOPE OF DEMOLITION IS AS FOLLOWS--
REMOVE ALL DEVICES, WIRING AND CIRCUITS BACK TO THE PANEL UNLESS OTHERWISE NOTED.
REFEED ANY DEVICES REMAINING DOWN LINE FROM REMOVED DEVICE.
REMOVE FIRE ALARM SYSTEM IN ITS ENTIRETY. PROVIDE BLANK COVERS ON ALL REMAINING FIRE ALARM
JUNCTION BOXES IN AREAS THAT AREN'T BEING DEMOED.



⊘ ⊖ DEVICE TO BE REMOVED (TYPICAL)

⊖ ⊖ DEVICE TO REMAIN IN PLACE (TYPICAL)

1 EXISTING POWER PLAN
SCALE: 1/4" = 1'-0"

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PROJECT TITLE
CASWELL COUNTY
REST AREA

US 29
PELHAM, NORTH CAROLINA

PROJECT NO.
1504b

DRAWING TITLE
EXISTING POWER
PLAN

14

PLOT DATE 9/16/16

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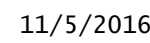
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1 REVISED POWER PLAN

SCALE: 1/4" = 1'-0"

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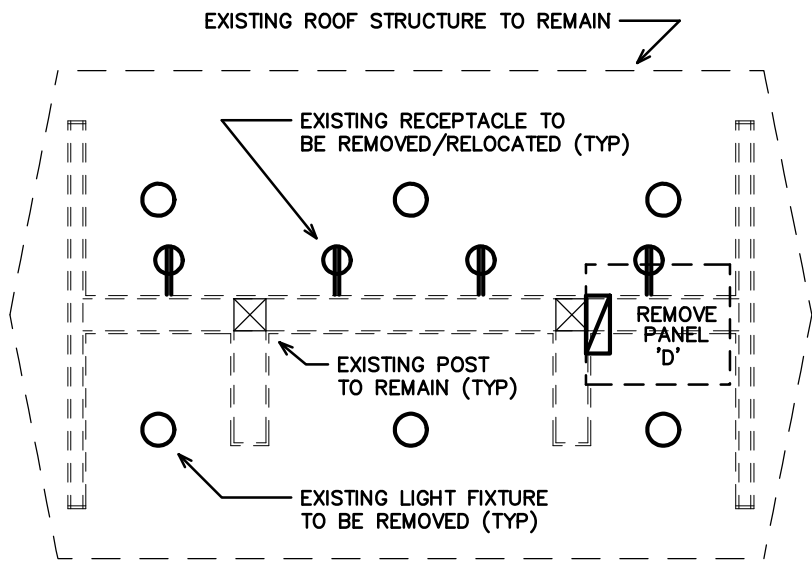
DRAWING TITLE
VENDING AREA/ATTIC ACCESS
ELECTRICAL PLANS

116

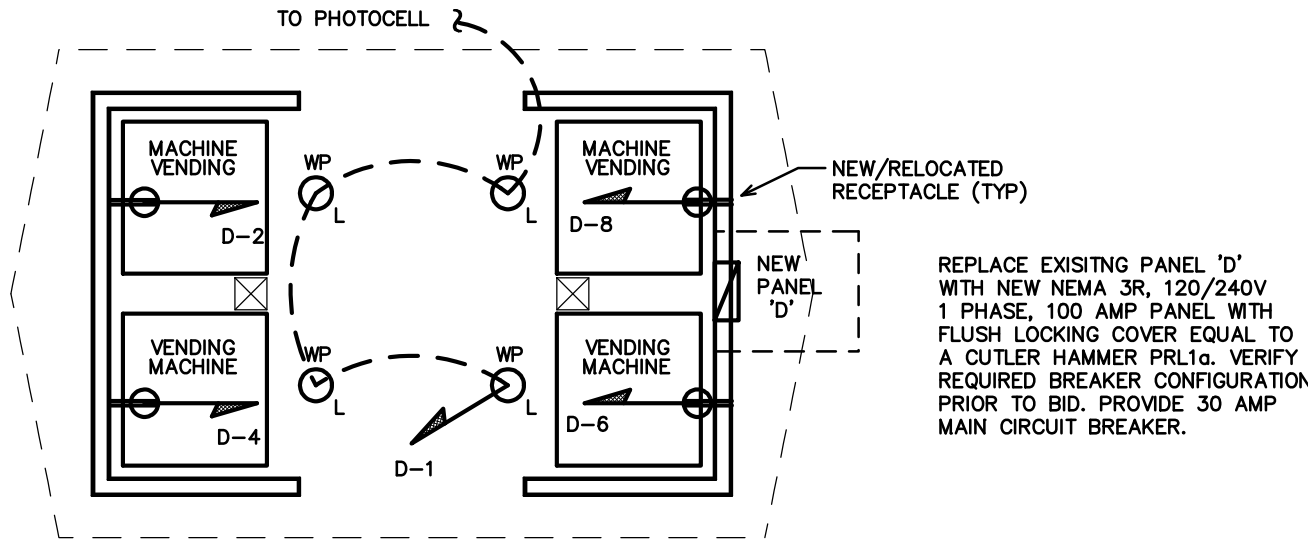
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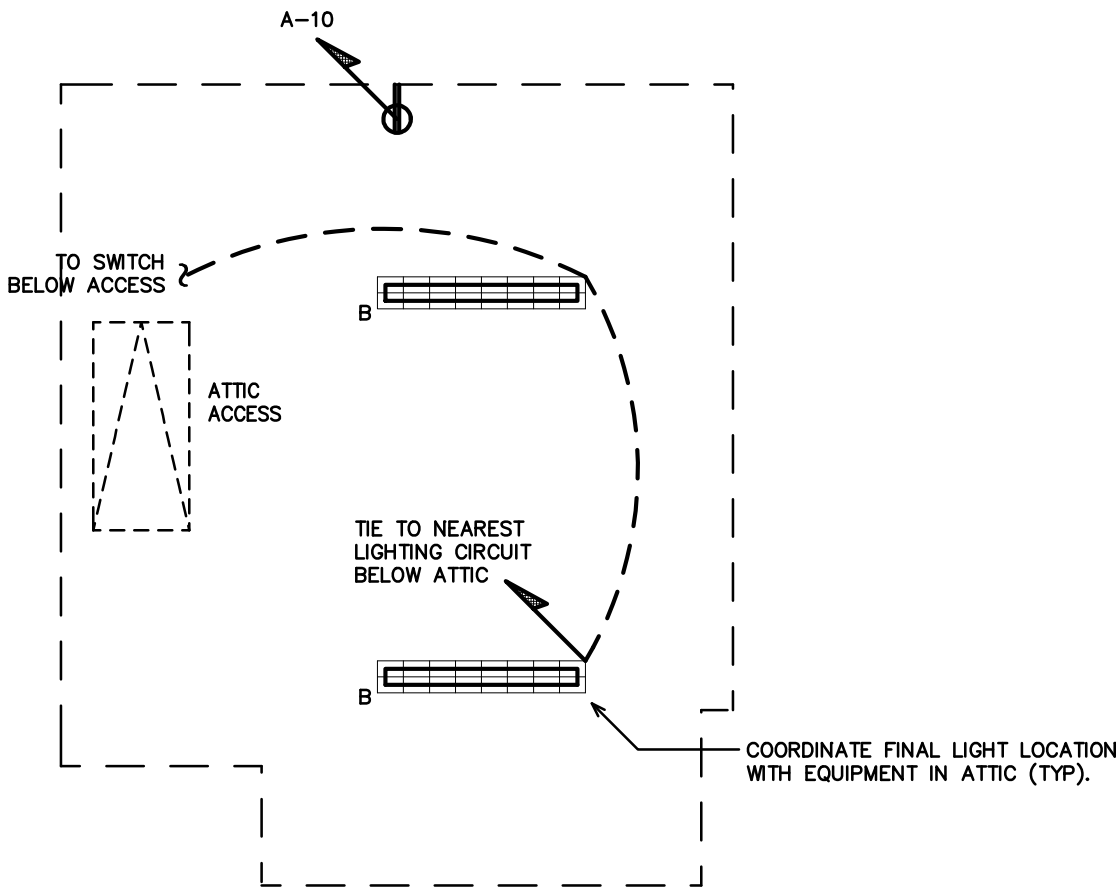
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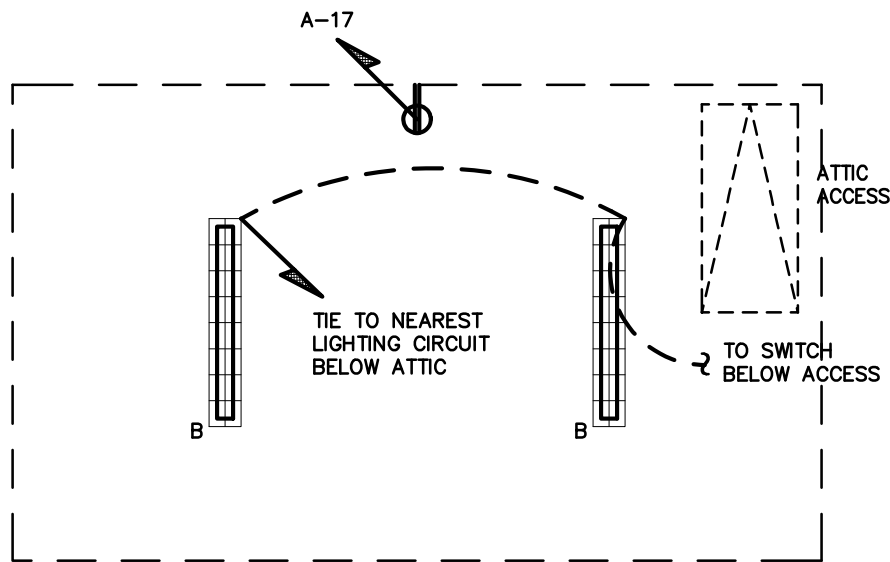
1 VENDING - EXISTING PLAN
SCALE: 1/4" = 1'-0"



2 VENDING - REVISED PLAN
SCALE: 1/4" = 1'-0"



1 ATTIC ACCESS #1
SCALE: 1/4" = 1'-0"



2 ATTIC ACCESS #2
SCALE: 1/4" = 1'-0"

Coswell E7 REVISED PANEL 'D'		MAKE: SQUARE D TYPE: NQ00		RATING: 120/240 1 PHASE 3 WIRE MOUNTING: SURFACE MINIMUM AIC: VERIFY		M.L.O. MAIN CIRCUIT BREAKER EQUIPMENT GROUND BUS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO SERVICE ENTRY RATED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
LOAD SERVICE	CKT BRKR	WATTS PER PHASE A B		CKT NO	NEUTRAL A B	CKT NO	WATTS PER PHASE A B	CKT BRKR	LOAD SERVICE
AIR HANDLER	60A	---		1		2	---	20A	LIGHTS DISPLAY AREA
BATHROOM FAN & LIGHT	20A	---		3		4	---	20A	LIGHTS DISPLAY AREA PHOTOCELL
EXIT & EMERGENCY LIGHT	20A	---		5		6	---	20A	LIGHTS COUNTERTOP
REC. AT WATER COOLER	20A	---		7		8	---	20A	TRACK LIGHTS
REC. AT WORK ROOM	20A	---		9		10	---	20A	LIGHTS WORK ROOMS & OFFICE
CAMERA	20A	---		11		12	---	20A	LIGHTS HALL
EW-1	20A	1650		13		14	---	20A	LIGHTS PORCH
AUTOMATIC DOOR OPENER	20A	250		15		16	---	20A	REC. OFFICE
SPARE	20A	---		17		18	---	20A	REC. WORK ROOMS
SPARE	20A	---		19		20	---	20A	REC. DISPLAY AREA
SPARE	20A	---		21		22	---	20A	NEW CHILLER/VISITOR AREA
SPARE	20A	---		23		24	---	30A	OUTSIDE UNIT
SPARE	20A	---		25		26	---		-
SPARE	20A	---		27		28	---	20A	SPARE
SPARE	20A	---		29		30	---	20A	SPARE
SPARE	20A	---		31		32	---	20A	SPARE
SPARE	20A	---		33		34	---	20A	SPARE
SPARE	20A	---		35		36	---	20A	SPARE
SPARE	20A	---		37		38	---	20A	SPARE
SPARE	20A	---		39		40	---	20A	SPARE
SPARE	20A	---		41		42	---	20A	SPARE
NOTES	SUB-TOTALS 'B'		---	---	225A	BUS	---	SUB-TOTALS 'A'	
LOOKING BREAKER					225A	LUGS	---	SUB-TOTALS 'B'	
EXISTING BREAKER/CIRCUIT TO REMAIN					225A	FEED	---	GRAND TOTAL	
NEW/REVISED BREAKER/CIRCUIT					VERIFY	SIZE	--A	--A	AMPS/PHASE
								TOTAL CONNECTED LOAD	

Coswell E7

NEW PANEL- 'SP'

MAKE: CUTLER HAMMER
TYPE: PRL1A
OR APPROVED EQUAL

RATING: 120/240 1 PHASE 3 WIRE
MOUNTING: SURFACE
MINIMUM AIC: VERIFY

M.L.O. MAIN CIRCUIT BREAKER
EQUIPMENT GROUND BUS ☒ YES ☐ NO
SERVICE ENTRY RATED ☐ YES ☒ NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE		CKT NO	NEUTRAL A B	CKT NO	WATTS PER PHASE		CKT BRKR	LOAD SERVICE
ERV-1	25A	1919		1		2	4332		50A	AHU-2
			1919	3		4	4332			
HP-2	35A	2148		5		6	1919		25A	ERV-2
			2148	7		8	1919			
SPARE	20A	---		9		10	---		20A	SPARE
SPARE	20A	---	---	11		12	---	---	20A	SPARE
SPARE	20A	---		13		14	---		20A	SPARE
SPACE		---		15		16	---	---		SPACE
SPACE		---		17		18	---			SPACE
SPACE		---		19		20	---	---		SPACE
SPACE		---		21		22	---			SPACE
SPACE		---		23		24	---			SPACE
SPACE		---	---	25		26	---	---		SPACE
SPACE		---	---	27		28	---	---		SPACE
SPACE		---		29		30	---			SPACE
NOTES	SUB-TOTALS 'B'		4067	4067	<div>100A BUS 6251 6251</div> <div>100A LUGS 4571 4571</div> <div>100A FEED 10822 10822</div> <div>VERIFY SIZE 90A 90A</div>		SUB-TOTALS 'A'		SUB-TOTALS 'B'	
						GRAND TOTAL		TOTAL CONNECTED LOAD		
						AMPS/PHASE				

NEC ALLOWABLE DEMAND FACTORS

① DEMAND FACTORS PER NEC 220

② LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD

③ NEC TABLE 220.56

④ NEC 220.51

⑤ NEC 220.43A, 200 VA/LINEAR FT

⑥ NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED

DIVERSIFIED LOAD SUMMARY			
LOAD TYPE	DEMAND FACTOR	A	B
GENERAL LIGHTING	② 125%	---	---
TRACK LIGHTING	125%	---	---
GENERAL USE RECEPTACLES	≤10KV/4000K	---	---
MOTORS AND EQUIPMENT	LARGEST 125%	2685	2685
ALL OTHERS	100%	8170	8170
WATER HEATERS	125%	---	---
KITCHEN EQUIPMENT	② 100%	---	---
FIX. ELEC. SPACE HEAT.	② 100%	---	---
SHOW WINDOW LIGHTS	② 125%	---	---
SIGN	125%	---	---
MISC	100%	---	---
PHASE (TOTAL VA)		10855	10855
TOTAL AMPS		91A	91A
		VOLT AMPS VOLTS = 91A TOTAL AMPS	

Coswell E7 NEW PANEL- 'D'		MAKE: CUTLER HAMMER TYPE: PRL1a OR APPROVED EQUAL		RATING: 120/240 1 PHASE 3 WIRE MOUNTING: FLUSH- VERIFY MINIMUM AIC: VERIFY		30A MAIN CIRCUIT BREAKER EQUIPMENT GROUND BUS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO SERVICE ENTRY RATED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				
LOAD SERVICE	CKT BRKR	WATTS PER PHASE A B		CKT NO	NEUTRAL A B	CKT NO	WATTS PER PHASE A B		CKT BRKR	LOAD SERVICE
LIGHTS	20A	52	----	1		2	1000	B	20A	REC- VENDING
SPARE			----	3		4		1000		REC- VENDING
SPARE	↓	---	----	5		6	1000			REC- VENDING
SPARE			----	7		8		1000		REC- VENDING
SPARE		---	----	9		10	---			SPARE
SPARE			----	11		12	---		↓	SPARE
NOTES	SUB-TOTALS 'B'		52	----			100A	BUS	2000	SUB-TOTALS 'A'
NEMA 3R LOCKING COVER						100A	LUGS	52	----	SUB-TOTALS 'B'
						30A	FEED	2052	2000	GRAND TOTAL
						VERIFY	SIZE	17A	17A	AMPS/PHASE
TOTAL CONNECTED LOAD										

Coswell E7

EXISTING PANEL 'MDP'

MAKE: SQUARE D

TYPE: HCV

RATING: 120/240 1 PHASE 3 WIRE

MOUNTING: SURFACE

MINIMUM AIC: VERIFY

M.L.O. MAIN CIRCUIT BREAKER

EQUIPMENT GROUND BUS ☒ YES ☐ NO

SERVICE ENTRY RATED ☐ YES ☒ NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A B	CKT NO	NEUTRAL A B	CKT NO	WATTS PER PHASE A B	CKT BRKR	LOAD SERVICE
PANEL A	400A	30952	1		2	----	100A	SPARE
		33287	3		4	----		
PANEL C (UTILITY BLD)	100A	360	5		6	----	225A	SPARE
		200	7		8	----		
SPACE		----	9		10	----		SPACE
SPACE		----	11		12	----		SPACE
SPACE		----	13		14	----		SPACE
SPACE		----	15		16	----		SPACE
SPACE		----	17		18	----		SPACE
SPACE		----	19		20	----		SPACE
NOTES	SUB-TOTALS 'B'		31312	33487	600A	BUS	----	SUB-TOTALS 'A'
				600A	LUGS	31312	33487	SUB-TOTALS 'B'
				600A	FEED	31312	33487	GRAND TOTAL
				VERIFY	SIZE	261A	279A	AMPS/PHASE
						TOTAL CONNECTED LOAD		
NEC ALLOWABLE DEMAND FACTORS		DIVERSIFIED LOAD SUMMARY						
① DEMAND FACTORS PER NEC 220		LOAD TYPE		DEMAND FACTOR	A	B	TOTAL DIVERSIFIED LOAD	
② LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD		GENERAL LIGHTING	②	125%	8784	8338	17122	
③ NEC TABLE 220.56		TRACK LIGHTING		125%	----	----	----	
④ NEC 220.51		GENERAL USE RECEPTACLES		<10KV/4000K	1440	720	2160	
⑤ NEC 220.43A, 200 VA/LINEAR FT		MOTORS AND EQUIPMENT	LARGEST	125%	2685	2685	5370	
⑥ NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED		WATER HEATERS	ALL OTHERS	100%	14650	14650	29300	
		KITCHEN EQUIPMENT	②	100%	2813	2813	5626	
		FIX. ELEC. SPACE HEAT.	②	100%	----	----	----	
		SHOW WINDOW LIGHTS	②	125%	----	----	----	
		SIGN		125%	----	----	----	
		MISC		100%	4661	6545	11206	
		PHASE (TOTAL VA)		35033	35751		70784	
		TOTAL AMPS		292A	298A		VOLT AMPS VOLTS = 295A	TOTAL AMPS

Coswell E7 EQUIPMENT WIRING SCHEDULE						
EQUIPMENT	MCA	MOCP	VOLTS	PH	WIRE SIZE	
AHU-1	44.7A	50A	208V	1	2-#8, 1-#10 GND IN 3/4" CONDUIT	
ERV-1	18.5A	25A	208V	1	2-#10, 1-#10 GND IN 1/2" CONDUIT	
HP-1	22.1A	35A	208V	1	2-#8, 1-#10 GND IN 3/4" CONDUIT	
AHU-2	44.7A	50A	208V	1	2-#8, 1-#10 GND IN 3/4" CONDUIT	
ERV-2	18.5A	25A	208V	1	2-#10, 1-#10 GND IN 1/2" CONDUIT	
HP-2	22.1A	35A	208V	1	2-#8, 1-#10 GND IN 3/4" CONDUIT	
EW-2	(4.5KW)	30A	208V	1	2-#10, 1-#10 GND IN 1/2" CONDUIT	

NOTE:
THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN AND RELEASING GEAR. ADJUST BREAKER, WIRE SIZES, ETC. AS REQUIRED.

Coswell E7 EXISTING PANEL 'A'		MAKE: SQUARE D		RATING: 120/240 1 PHASE 3 WIRE				M.L.O. MAIN CIRCUIT BREAKER			
		TYPE: NQ00		MOUNTING: SURFACE				EQUIPMENT GROUND BUS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
				MINIMUM AIC: VERIFY				SERVICE ENTRY RATED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
LOAD SERVICE	CKT BRKR	WATTS PER PHASE A B	CKT NO	NEUTRAL A B	CKT NO	WATTS PER PHASE A B	CKT BRKR	LOAD SERVICE			
INDOOR UNIT WITH STRIP	60A	---	1		2	---	20A	LTS: N.E. WOMANS & STORAGE			
		---	3		4	---	20A	LTS: S.E. WOMANS & ATTIC			
WATER HEATER	50A	---	5		6	---	20A	LTS: S.W. MENS & ATTIC			
		---	7		8	---	20A	LTS: N.W. MENS & STORAGE			
CONDENSING UNIT	50A	---	9		10	---	20A	INLINE FAN			
		---	11		12	---	20A	WOMANS TOILET SENSORS			
SPARE	20A	---	13		14	---	20A	RECP: WOMENS			
HAND DRYER, WOMENS	20A	---	15		16	---	20A	HAND DRYER, WOMENS			
RECP: WOMENS	20A	---	17		18	---	20A	RECP: MENS & STORAGE			
HAND DRYER, MENS	20A	---	19		20	---	20A	RECP: MENS			
HAND DRYER, MENS	20A	---	21		22	---	20A	ELECTRIC WATER COOLER			
FIRE ALARM CONTROL PANEL	20A	---	23		24	---	20A	MENS TOILET SENSORS			
LTS: HALL	20A	---	25		26	---	20A	INLINE FAN			
SPARE	20A	---	27		28	---	30A	LTS: SITE			
SPARE	20A	---	29		30	---					
LTS: HALL	20A	---	31		32	---	30A	LTS: POST TOP			
LTS: EMERGENCY & EXIT	20A	---	33		34	---					
LIGHTING CONTROLS	20A	---	35		36	---					
VENDING SHELTER PANEL 'D'	30A	---	37		38	---	30A	LTS: SITE			
		---	39		40	---					
REGP: FOUNTAIN	20A	---	41		42	---	30A	LTS: SITE			
NOTES	SUB-TOTALS 'B'				400A BUS	---	---	SUB-TOTALS 'A'			
					400A LUGS	---	---	SUB-TOTALS 'B'			
					400A FEED	---	---	GRAND TOTAL			
LOCKING BREAKER					VERIFY SIZE	--A	--A	AMPS / PHASE			
								TOTAL CONNECTED LOAD			

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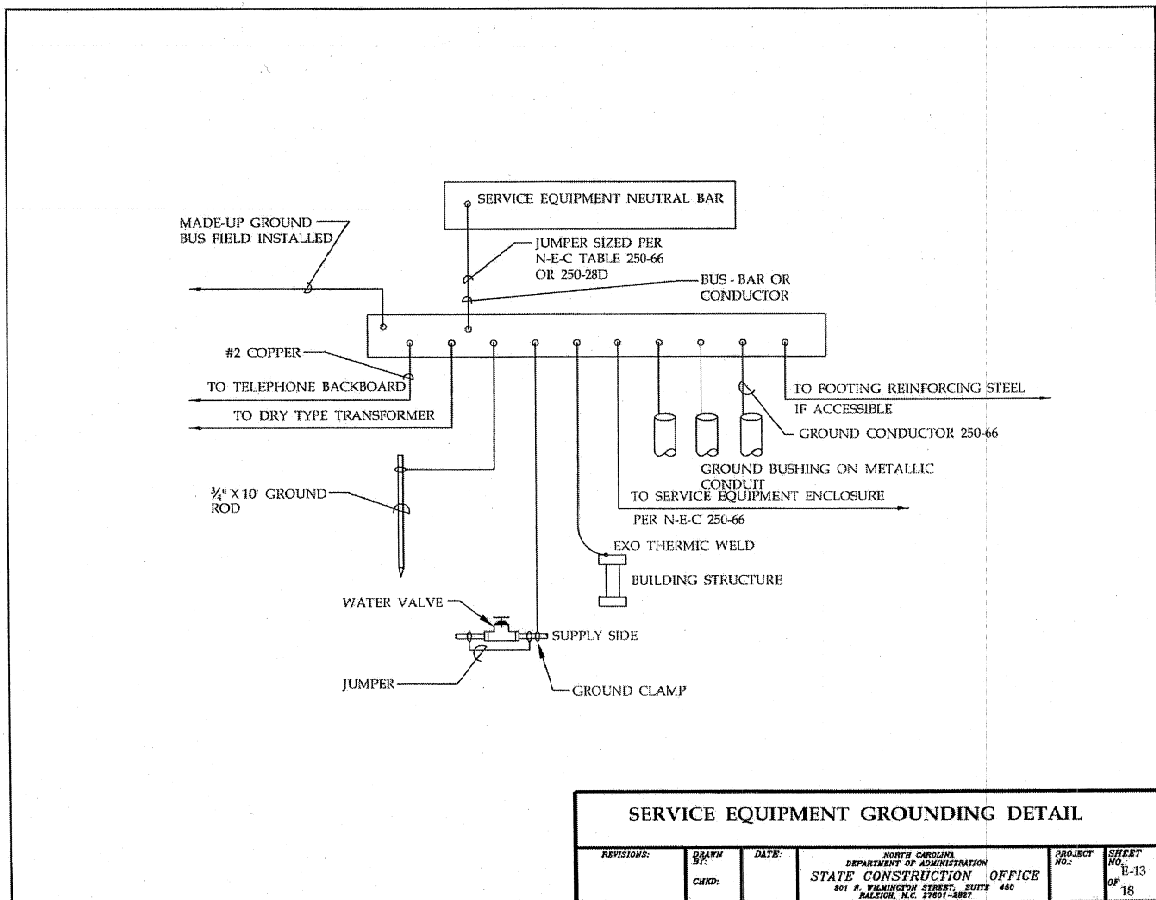
DRAWING TITLE
MISC ELECTRICAL DETAILS

18

PLOT DATE 9/16/16

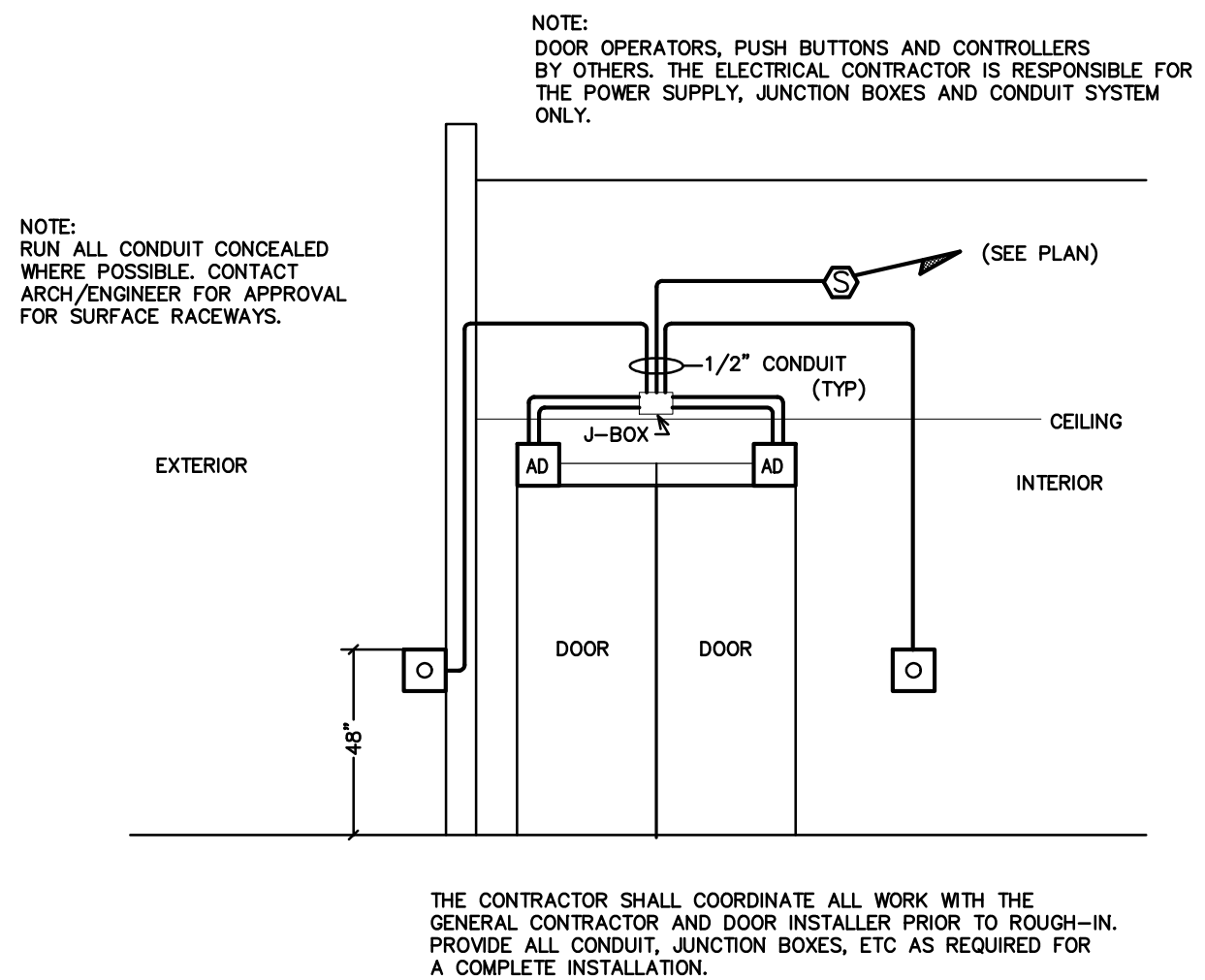
This original sheet is 22" x 34"; other dimensions indicate it has been altered.

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1 GROUNDING / BONDING DETAIL

SCALE: NOT TO SCALE



1 ADA DOOR CONTROL DETAIL

SCALE: NOT TO SCALE

Existing Sidewalk and Grades to Stay in Place

New Patio Area with Conc. Border and Multi-color Pavers (cross-slope not to exceed 2%). See paver details.

Remove old conc. pad, benches, etc.

Standalone 5' Benches (anchored)

PROTECT AND PRESERVE ALL PLANT MATERIAL ONSITE AND SURROUNDING THE BLDG.

Patio Area with Conc. Border and Multi-color Pavers (see paver details)

Standalone 5' Bench (anchored)

Add 5' Wide Sidewalk (slope not to exceed 3%).

Align Sidewalk to Preserve Tree

Remove old conc. pad, benches, etc.

New Patio Area with Conc. Border and Multi-color Pavers (see paver details)

Standalone 5' Bench (anchored)

5' OFF BLDG.

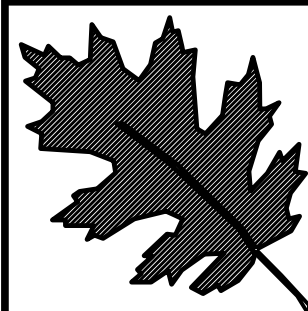
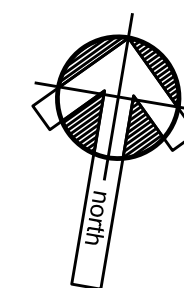
22'9" 26' 13'9" 15' 17'

1) SITE/VISITOR CENTER
TO REMAIN OPEN DURING
CONSTRUCTION.

3) CONTRACTOR IS RESPONSIBLE FOR THE SAFETY AND SECURITY OF ALL PROPERTY AND MATERIALS.

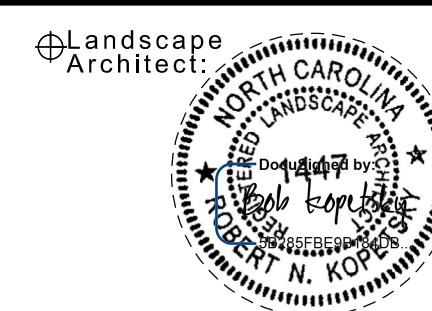
4) ANY VEGETATION DAMAGED DURING CONSTRUCTION SHALL BE REPLACED INKIND.

5) CHECK WITH NCDOT ENGINEER
ON EXTENT OF CONC. REMOVAL
OUTSIDE BUILDING.



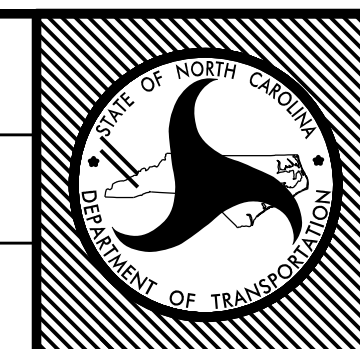
Caswell County Rest Area Renovation

project #: 51213.022

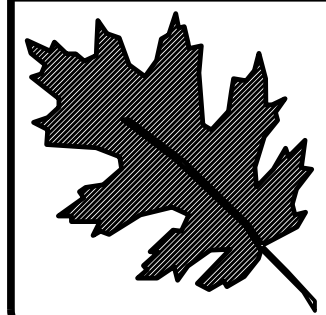
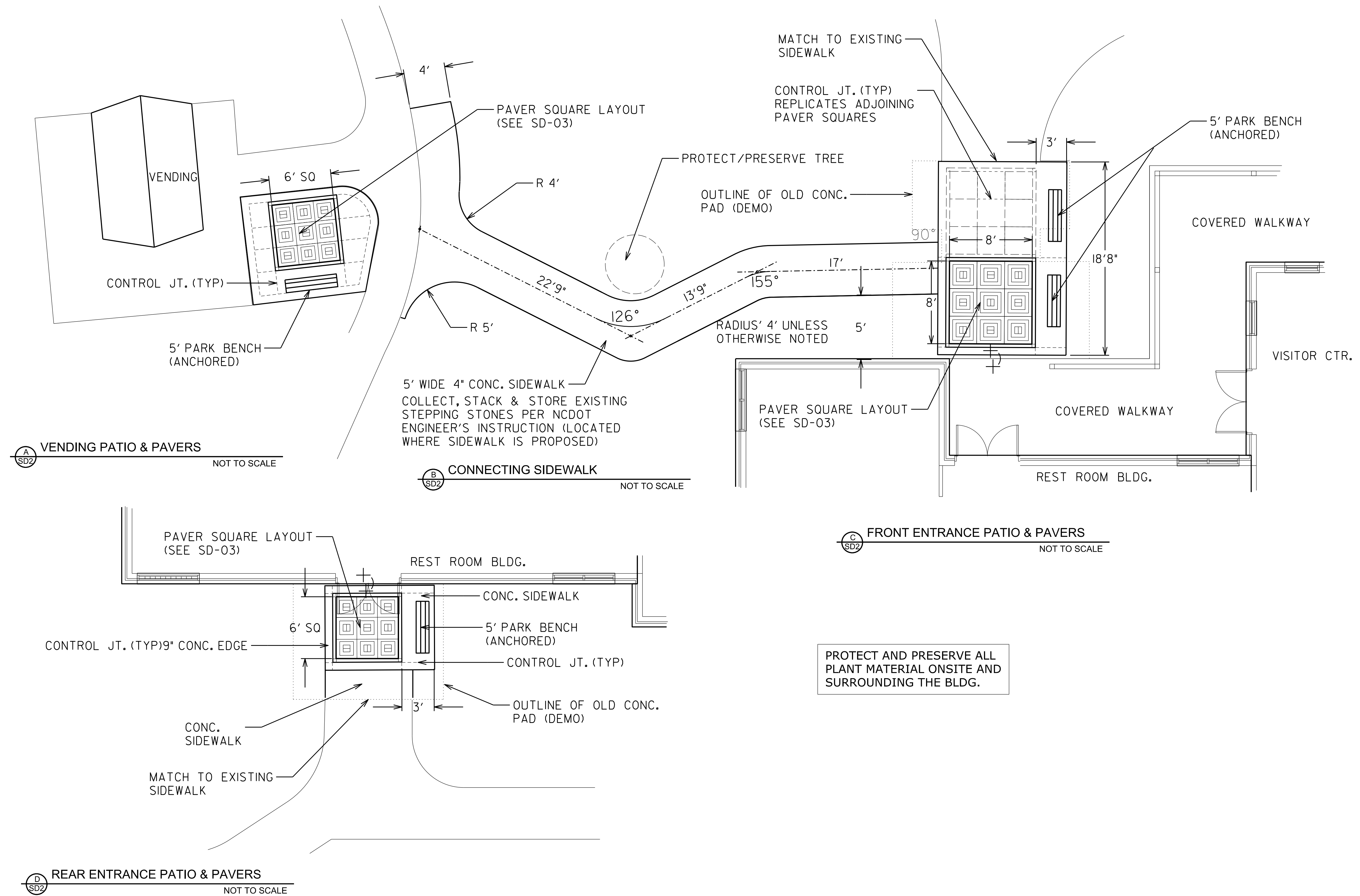


sheet description:	prel. design date : NOV/2016
	checked by & date :
	final design date : 11-3-16

Rest Area Renovation
Site Development Plan

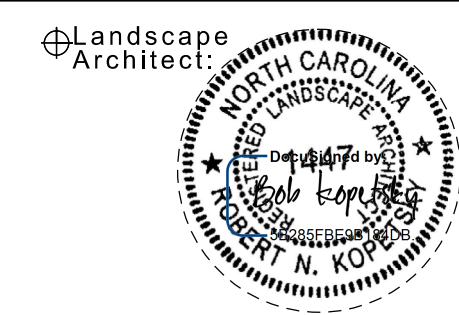


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WBS #	51213.022
FED I.D. #	
sheet no :	total sheet no :
<i>SD 01</i>	



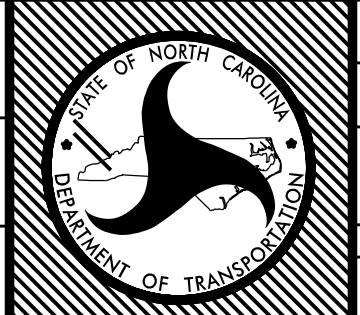
NCDOT - Roadside Environmental Unit
Landscape Design & Development
1557 Mail Service Center Raleigh NC 27699-1557
PH: 919-707-2920 fax: 919-215-2554
http://www.ncdot.org/doh/operations/dp_chief_eng/roadside/

Caswell County
Rest Area Renovation
project #: 51213.022

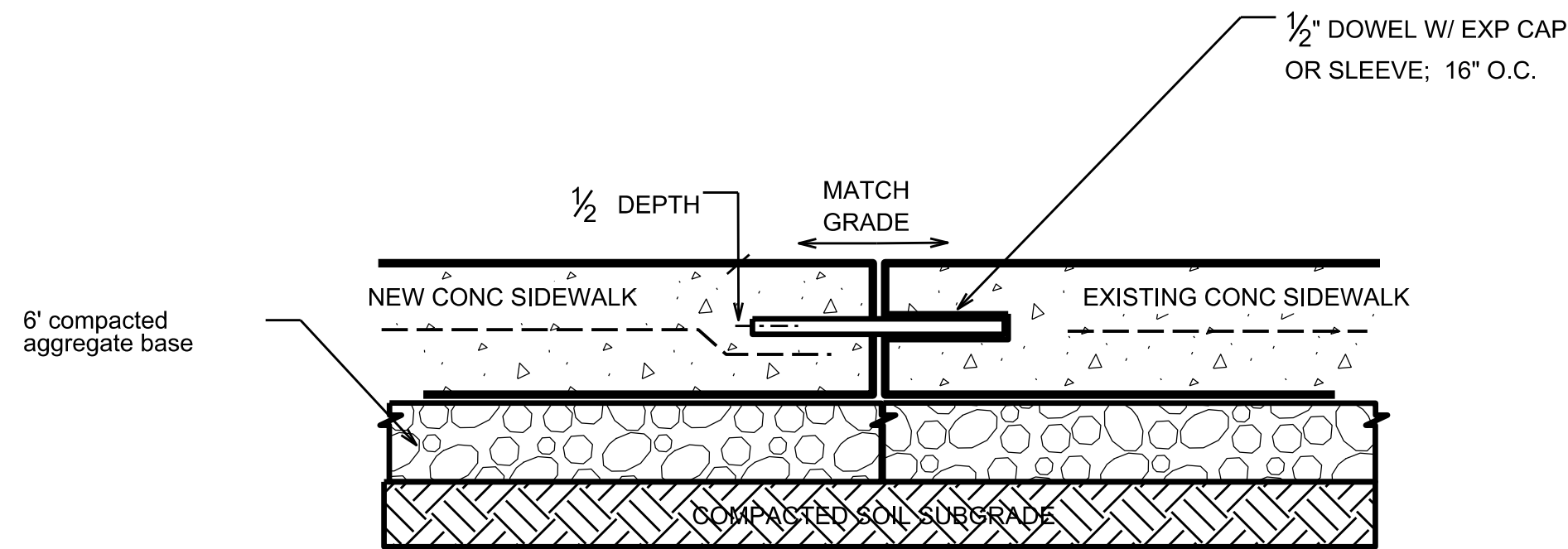


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checked by & date :	
final design date :	11-3-16

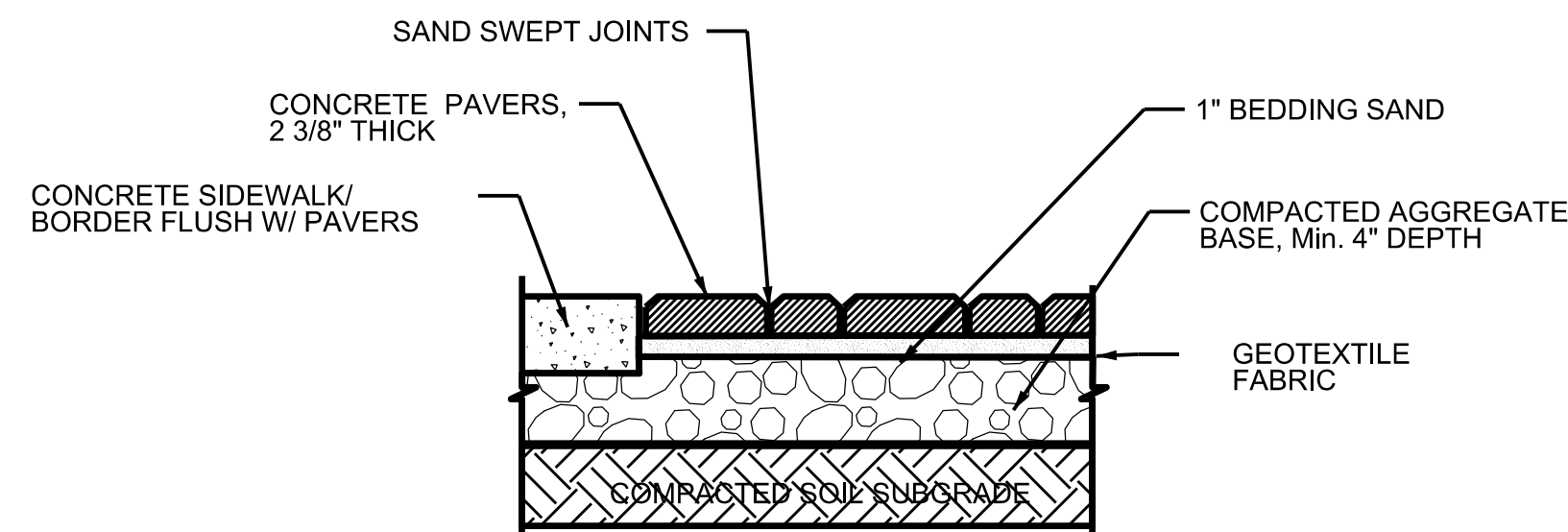
Rest Area Renovation
Site Layout Details



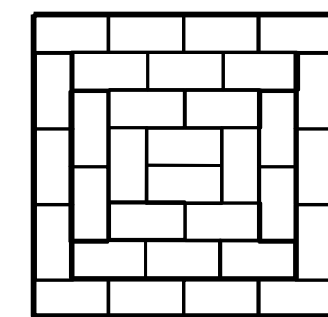
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	51213.022	
sheet no :	total sheet no :	
SD 02		



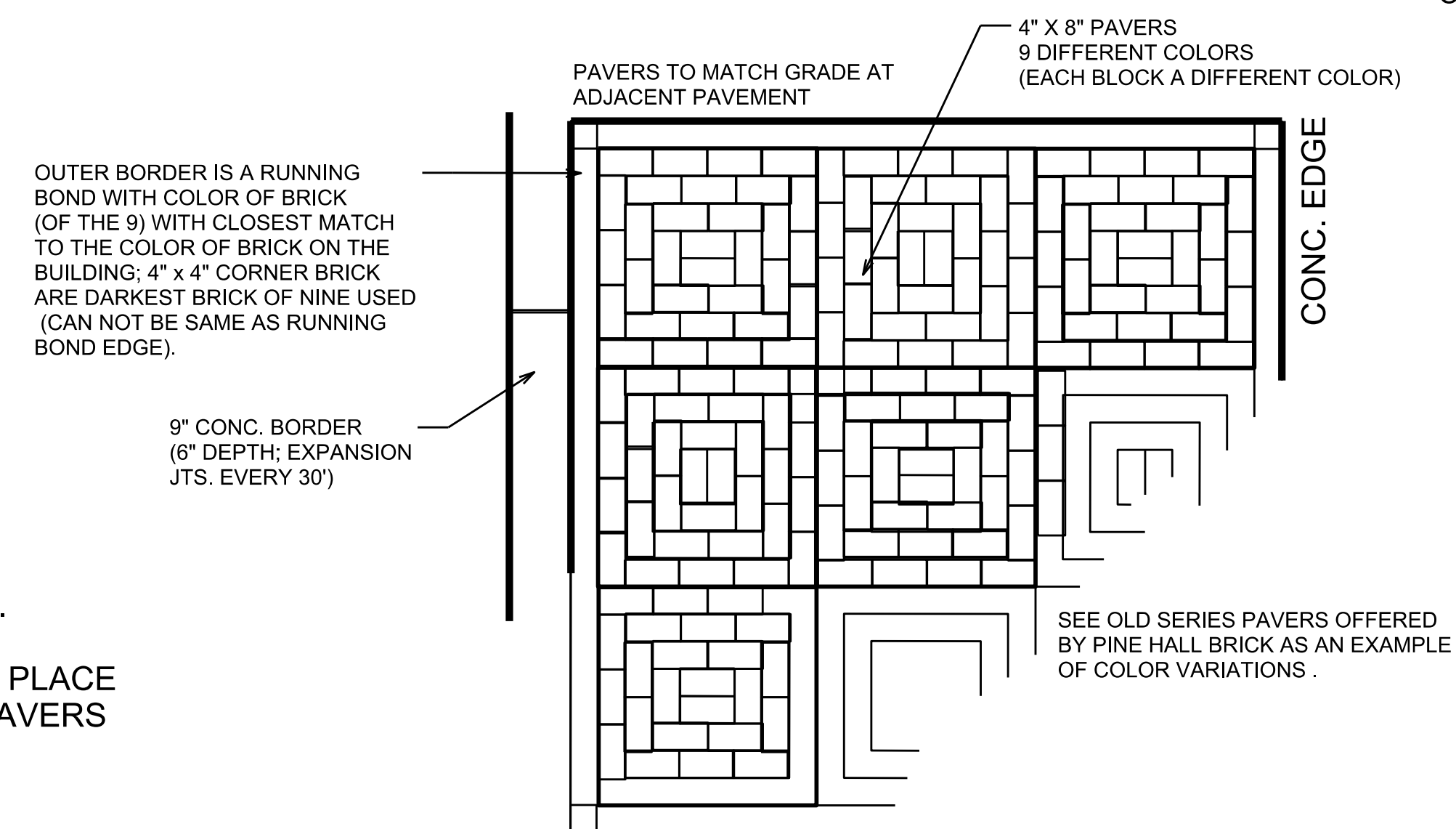
E
SD3 **JOINING NEW CONC. TO EXISTING**
NOT TO SCALE
FOR ALL LOCATIONS WHERE EXISTING
SIDEWALK ADJOINS NEW CONC. CONSULT
DOT ENGINEER FOR APPROPRIATE
APPROVED APPLICATION.



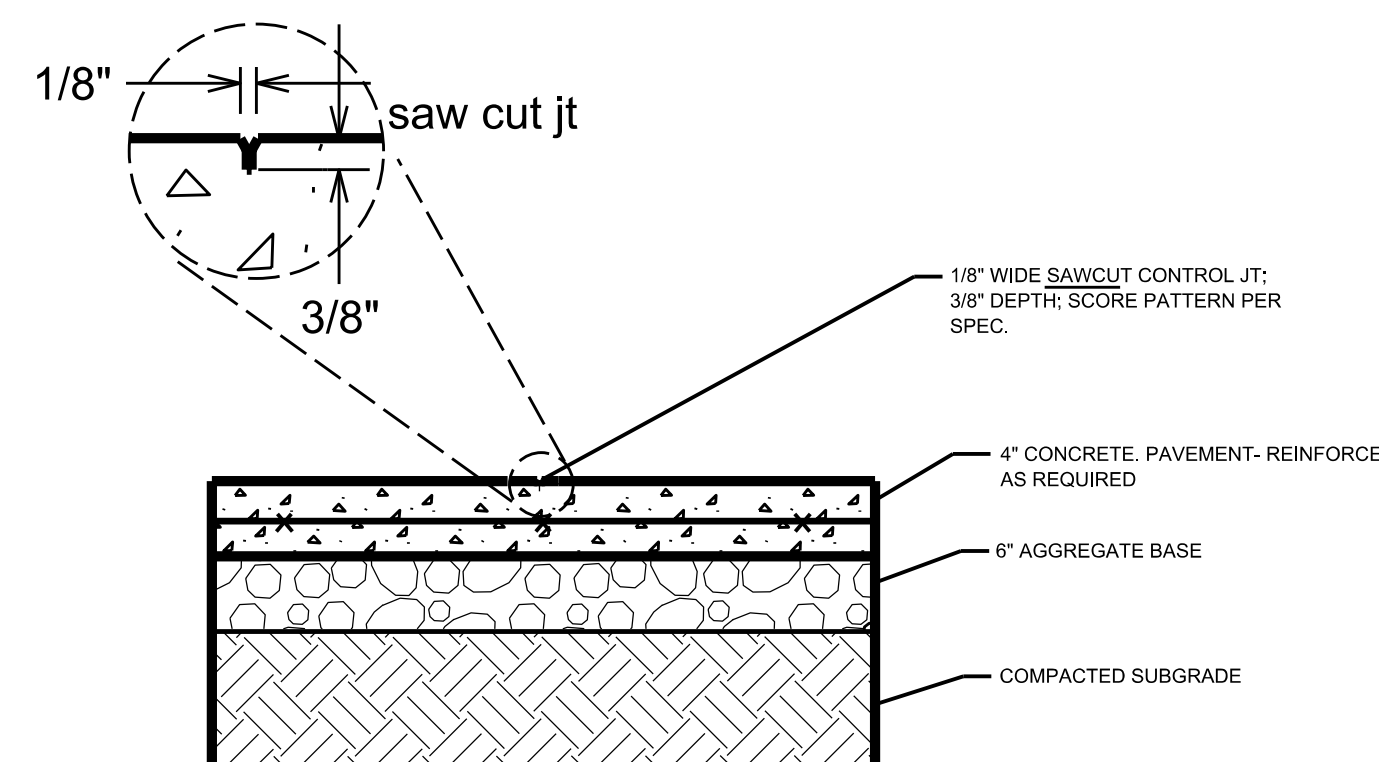
G
SD3 **PAVER INSTALLATION DETAIL**
NOT TO SCALE



ONE BLOCK



H
SD3 **PAVER PATTERN DETAIL**
NOT TO SCALE

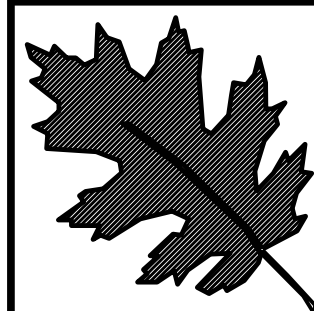
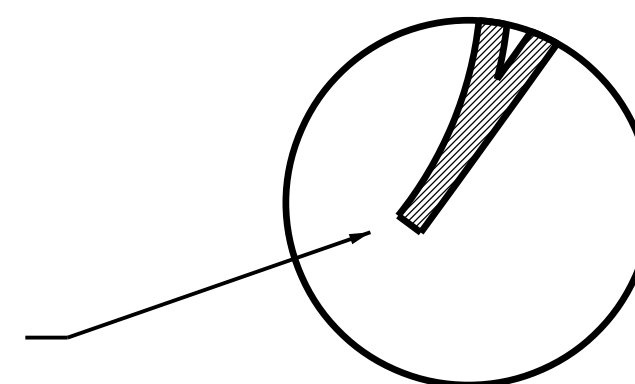


F
SD3 **CONCRETE SIDEWALK - CONTROL JOINT**
NOT TO SCALE

GENERAL NOTES:

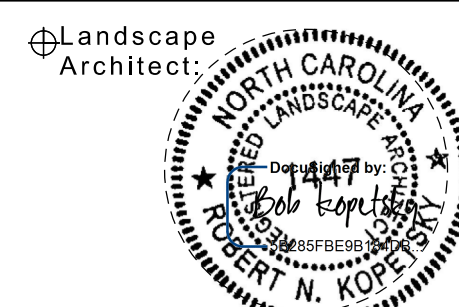
- 1) SIDEWALK AS SPECIFIED BY SITE/HARDSCAPE PLANS.
- 2) CONCRETE/ PAVER AREA AS SHOWN WITH 9" CAST IN PLACE CONCRETE BORDER UNLESS OTHERWISE SPECIFIED . PAVERS TO BE A BLEND, COLOR, AND SIZE AS SPECIFIED.
- 3) STANDARD 4" THICK CONCRETE SIDEWALK; CONTROL JOINT EVERY 5' (OR AS NOTED) AND EXPANSION JOINT EVERY 30'.
- 4) ALL HARDSCAPE SURFACES SHALL BE GRADED PROPERLY TO DRAIN TO DESIGNATED LANDSCAPE AREAS OR DROP INLETS.

WHERE CONC. SIDEWALK OR
PAVERS COME TO A POINT,
END IS 9" OR A FULL WIDTH
OF PAVER.



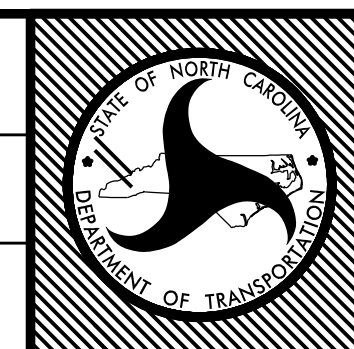
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Caswell County
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Rest Area Renovation
PAVEMENT DETAILS



T.I.P. #
WBS # 51213.022
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sheet no : total sheet no :
SD 03